

HELP THY NEIGHBOR: A STUDY OF BYSTANDER  
INTERVENTION IN EMERGENCIES

By

ELLEN WEISS WILLIAMS

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To Randy

We finally made it. I'm coming home for good.

Ellen

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HELP THY NEIGHBOR: A STUDY OF BYSTANDER  
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By

Ellen Weiss Williams

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Chairman: Dr. Marvin E. Shaw

Major Department: Psychology

The area of bystander intervention, one of the numerous outgrowths of research in helping behavior, has generated considerable interest in the past few years. Initial investigations focused on developing a conceptual framework of the bystander intervention paradigm (BIP), the effects of number of bystanders or diffusion of responsibility, and the effects of social influence processes on helping. More recently, work has been done on the effects of ambiguity and geographical location and their effects on the bystander.

The present study was designed to incorporate previous research, as well as to test two new hypotheses, within the framework of Thibaut and Kelley's theory of interaction outcomes. The purpose of reevaluating previous experimental BIP results within the reward/cost framework was not intended to devalue their implications, but rather to eliminate some of the confusion generated by conflicting interpretations.

- Using this framework, diffusion of responsibility, for example, became an instance of relationship evaluation; situational ambiguity was redefined in terms of bystanders' desires for positive outcomes, and differential helping rates based on geographic location were reexamined in terms of bystander individual differences in CL.

Based on the notion of reward/cost, it was predicted that;

1. Bystander intervention would occur more frequently and more rapidly when a bystander perceived himself to be attitudinally similar rather than dissimilar to the victim, and
2. Bystander intervention would occur more frequently and more rapidly when a bystander is familiarized with the emergency setting prior to the emergency than when he is not (Environmental Familiarity).

Data were collected on 128 college students at the University of Florida. In addition to speed and mode of helping, demographic characteristics and social desirability scores were obtained for each subject. Comparisons were also made between male and female bystanders as well as between bystanders who were alone with those in the presence of two non-reacting confederates.

Results indicate that environmental familiarity and sex of bystander do not affect bystander intervention. Attitude similarity and group size, however, were strong determinants of helping. With regard to all analyses, it was the single bystander who was both most likely to aid the victim, and the one to do so in the shortest amount of time. The data also indicate that increased attitude similarity between the victim and bystander facilitated certain modes of helping behavior.

An interesting attitude similarity by number interaction occurred in a number of analyses. It was found that while high similarity subjects were most efficient when alone, the low similarity bystander was most likely to intervene when placed with two non-reacting confederates. In addition, no significant correlations were obtained between bystander intervention and social desirability.

One of the major weaknesses of the bystander intervention area is that, until recently, researchers have been concerned with why people don't help (i.e., diffusion of responsibility). In contrast, the present study attempted to focus on variables which might increase the probability of helping. Further research along the lines of the present investigation may open up new avenues for increasing the likelihood that bystanders will intervene.

## CHAPTER I

### INTRODUCTION

It was 3:20 in the morning, March 13, 1964. Twenty-eight year old Catherine (Kitty) Genovese was returning home from her job as manager of a bar. She parked her car in the parking lot near her Kew Gardens, New York City apartment where she had lived since her move from Connecticut one year earlier. Miss Genovese noticed a man at the far end of the parking lot and becoming somewhat nervous, headed towards a nearby police call box. She got as far as a street light before the man grabbed her. Miss Genovese screamed, "Oh my God, he stabbed me! Please help me! Please help me!" Lights went on as thirty-eight of Miss Genovese's neighbors came to their windows to see what was happening. From one of the upper windows in the apartment house a man called down, "Let that girl alone!"

The assailant looked up at him, shrugged and walked down toward a car parked a short distance away. Miss Genovese struggled to her feet as lights went out. Moments later, the killer returned to Miss Genovese, now trying to make her way around the side of the building to get to her apartment. The assailant stabbed her again. "I'm dying!" she shrieked. "I'm dying!"

Windows were opened again and lights went on in many apartments. The murderer got into his car and drove away as Miss Genovese staggered to her feet. It was 3:35 A.M.

Once again, the assailant returned. By then Miss Genovese had crawled to the back of the building where the doors to the apartment house held out hope of safety. The killer tried the front door, but found that she wasn't there. At the second door he saw her slumped on the floor of the stairs. He stabbed her a third time, fatally. One half hour and thirty-eight witnesses later, Kitty Genovese was dead.

It was 3:50 by the time the police received their first call from a man who was a neighbor of Miss Genovese. In two minutes they were at the scene. The man explained that he had called the police after much deliberation. He had phoned a friend in Nassau County for advice and then he had crossed the roof of the building to the apartment of an elderly woman to get her to make the call. "I didn't want to get involved," he told the police (New York Times, March 28, 1964).

The bizarre behavior of these thirty-eight murder witnesses would be much easier to accept if it were unique. Unfortunately, however, it is not. Observe:

Eleanor Bradley was walking on crowded Fifth Avenue in New York City when she suddenly tripped and broke her leg. She lay on the sidewalk crying for help while hundreds of people passed by, but for 40 minutes no one stopped. (Freedman, Carlsmith and Sears, 1970, p. 413)

Seventeen year old Andrew Mormille was stabbed in the stomach in a New York subway. His assailants fled, leaving him bleeding badly. None of the 11 passengers in the subway car helped him and he bled to death. (Ibid, p. 414)

An 18 year old switchboard operator was raped and beaten in her office in the Bronx (New York City). She eluded her assailant and rushed out into the street, naked and bleeding. It was during the day and a crowd of 40 people gathered. No one, however, helped her when the rapist attempted to drag her back into the building. (Ibid, p. 414)

Why then, didn't these bystanders help? Most explanations offered have centered around the idea of bystander apathy. Some critics blame alienation caused by industrialization. Others cite depersonalization resulting from urbanization. Still others claim we have been dehumanized by our cold society. While these explanations may satisfy some, they do little in helping to understand the nature of bystander non-intervention and are, therefore, of little help to the behavioral researcher. The question remains, what factors affect bystander intervention?

#### Overview

All cases of bystander apathy have been subsumed under the general heading bystander intervention. Despite the differences in circumstances surrounding each incident, certain features remain constant. A breakdown delineation of the components in this paradigm, therefore, seems appropriate.

In an attempt to understand the nature of bystander apathy, many researchers have applied existing social psychological theories to the bystander paradigm. In a second section of this chapter, a brief introduction to Thibaut and Kelley's interaction outcome theory, a theory not yet applied to this area, will be reviewed so that one may better understand its relevance to bystander intervention.

Following this, the bystander intervention paradigm will be reformulated under Thibaut and Kelley's theoretical framework. The present author believes that this theory can help account for some of

the conflicting interpretations arrived at by previous research in this area.

In the fifth section, a comprehensive literature review is presented, reevaluating prior findings within the interaction-outcome framework. The research presented falls into three major areas with reference to bystander intervention; factors affecting the relationship among bystanders, situational determinants of the bystander intervention paradigm, and demographic and physical characteristics of the victim.

The sixth section reviews previous research leading directly to the present investigation; specifically, bystander/victim interaction, attitude similarity between the bystander and the victim, bystander/environmental interaction, and environmental familiarity.

Finally, hypotheses and expectations relevant to the present experiment are formally stated.

#### Bystander Intervention Paradigm

Kitty Genovese, Andrew Mommille, Eleanor Bradley, and others all suffered in seemingly senseless tragedies. Although each incident was unique, it is possible to extrapolate and examine a number of factors which were common to all, and have come to be known as the bystander intervention paradigm (BIP). Each incident involved four basic components: there is the victim of the incident, the bystander(s), the incident itself, generally referred to as the emergency, and the intervention of help-giving process.

#### The Victim

The victim is the person injured or harmed. All injury or harm

implies either physical or psychological abuse or discomfort. This injury can be brought about by some act (e.g., falling off of a high object), condition (e.g., seizure caused by epilepsy), agency (e.g., some other person physically harming the victim as in an assault), or circumstance (e.g., smoke pouring into a room through a vent). Whether the victim expects and prepares for such an emergency (e.g., possesses a fire extinguisher) or not is irrelevant. While expectation and preparation can minimize the damage caused by the emergency, it cannot keep it from occurring. In traditional bystander intervention studies, however, (Darley and Latané, 1968; Latané and Darley, 1968) the victim is generally unprepared for the subsequent emergency.

The victim and the bystander (to be discussed shortly) may or may not be acquainted prior to the emergency. They may become acquainted with one another prior to the actual emergency, they may be well acquainted with one another, or they may be total strangers to one another, and still be viewed as victim and bystander. It is the role rather than the relationship that delineates the victim from the bystander.

#### The Bystander

The bystander is an individual who is near to but is not part of the initial emergency. In the intervention paradigm, he is the person witnessing the emergency situation. Witnessing refers to being physically in the vicinity (not necessarily within sight) of the victim so that he is aware that something unusual is occurring. The

bystander, prior to the emergency, is unaware that such is about to take place.

### The Emergency

One of the most distinctive aspects of an emergency is that it involves threat or harm. Even if an emergency is handled successfully, usually it is the victim (not the bystander) who is the better off after intervention. Therefore, from the bystander's point of view, there are few rewards for successful action in an emergency. At worst, an emergency can bring physical harm not only to the original victim but also to anybody who gets involved in the situation, namely, the bystander himself. At best, the bystander will receive some reinforcement in the form of either financial gain, public recognition (via the news media), or some intrinsic feeling of having done well. This notion of possible harm puts pressure on bystanders to ignore the emergency, to distort their perceptions of it, or to underestimate their responsibility for getting involved.

A second distinctive feature of an emergency is that it is an unusual or rare event. An unusual or rare event is one that has either never or hardly ever occurred in the life of the bystander before. In addition to being rare, emergencies differ widely from one another. That is, even if a bystander had been present during some prior emergency (an automobile accident) it may bear no relation to the present one. Each emergency presents a different problem and each requires a different type of action. Having observed a fire would not necessarily equip one with the knowledge of how to act during an epileptic seizure.

A fourth characteristic of an emergency is that it usually is unforeseen; that is, it occurs suddenly and without warning. Neither the bystander nor the victim have any prior knowledge that the emergency might occur. Therefore, the bystander does not have the opportunity to think through in advance what course of action should be taken during an emergency. Since the victim becomes incapacitated during the emergency, the bystander, even if he decides not to act, must do his thinking in the immediacy of the situation. If there is more than one bystander present (as there is in many emergency situations) these bystanders have no opportunity to consult others not present as to the best course of action or to alert experts who are especially equipped to deal with emergencies (e.g., police, firemen, doctor). The bystander to an emergency is oftentimes left to his own resources.

The fifth and final feature of an emergency is that it requires immediate action. If the seizure, or fire, or assault is not dealt with at that moment; the situation may deteriorate, the seizure may get worse, the fire may spread, the victim may be murdered. The necessity for instant action prevents any bystander confronted with it from slowly and carefully weighing the different courses of action.

In summary, an emergency situation is one which involves harm or threat. It is a distinctively unusual or rare event which often-times occurs suddenly and without warning, and requires immediate action. It is, therefore, natural that most emergencies appear somewhat ambiguous to the bystander.

### The Intervention Process

To intervene means to come between two things or to interfere some ongoing action. Within the BIP, intervention refers to any helping action taken by the bystander. The two things a bystander could come between might be the victim and his assailant, or simply the victim and his pain. Similarly, a bystander who extinguishes a fire is interfering with some ongoing action whether a victim is present or not.

A bystander always has the choice of whether or not to intervene. If the bystander does decide to intervene, he must also decide what form of assistance to give. Should he rush in directly and try to help the victim or should he go and call someone better qualified for that job. Intervention, therefore, requires singling out a particular course of action from a rather wide choice in a very limited amount of time. Latané and Darley, two of the earliest researchers in this area, observed, "...failure to intervene may result from failing to notice an event, failing to realize that the event is an emergency, failing to feel personally responsible for dealing with the emergency, or failing to have sufficient skill to intervene" (1969, p. 248).

In summary, the bystander intervention paradigm involves a victim and a bystander, both possibly unprepared and unaware of the emergency that is about to take place. The victim, in what might be interpreted as an ambiguous situation, is in the process of being physically or psychologically harmed. The bystander, if he so chooses, intervenes by personally giving aid or sending for the same.

### A Theory of Interaction Outcomes

Many theories have been applied to account for bystander behavior (e.g., social responsibility, reciprocity, and interdependence theory). One relevant social psychological theory which has not been applied to explain the bystander effect is Thibaut and Kelley's reward/cost theory of interaction outcomes. Thibaut and Kelley (1959) developed the theory of interaction outcomes to account for the behavior of two or more individuals in an interaction relationship where each member is dependent on every other member for the achievement of positive outcomes.

### Analysis of Interaction

According to Thibaut and Kelley, "...the essence of any interpersonal relationship is interaction. Two individuals may be said to have formed a relationship when on repeated occasions they are observed to interact. By interaction it is meant that they emit behavior in each other's presence, they create products for each other. In every case we would identify as an instance of interaction there is at least the possibility that the actions of each person affect the other" (1959, p. 10). In addition, an interaction will be continued only if all participants in that interaction have been reinforced as a function of having participated (positive outcomes). Such reinforcements may take the form of material gain (money, objects) or psychological gain (more power, status, etc.). For interaction to continue, not only must participants achieve positive outcomes, there must also be the maximization of positive outcomes for each of the participants. That is, each individual tries to achieve the most reinforcement possible for interacting. Such a goal is functional both to the individual as well as the group as a whole.

### Consequences of Interaction (Rewards/Costs)

Although interaction outcomes can be described in a variety of ways, Thibaut and Kelley chose the rewards an individual receives and the costs he incurs, as their measures. Rewards were defined as a reduction in drive or in need fulfillment usually thought of in terms of satisfactions and pleasures derived from the interaction. Costs referred to any factors which made the performance of a behavior sequence more difficult or impossible. The greater the difficulty the individual has in exhibiting a particular set of behaviors, the greater the cost of interaction. They cited anxiety, embarrassment, physical or mental strain, and competing response tendencies as factors that increase cost. Therefore, the outcomes or consequences of interaction can be stated in terms of rewards received and costs incurred for each member of the dyad.

### The Determinants of Rewards and Costs

Thibaut and Kelley proposed two broad classes of determinants which together establish the rewards and costs of interaction. Exogenous determinants referred to factors that are more or less external to the interaction. Thibaut and Kelley believed that each individual brings with him into all of his relationships certain values and abilities which will affect the interaction. They cite four exogenous determinants which appear to be most significant: abilities, similarity, propinquity, and complementarity.

The second class of determinants, endogenous determinants, refers to those factors which are inherent to the relationship itself. For every response each participant is capable of enacting, there are

other responses which are incompatible (i.e., disturbing, or distracting) with it. If one member of the dyad enacts behavior  $a_1$  while the second one enacts an incompatible response  $b_2$ , the results will be an increase in costs to produce one or both sets.

In general, whether they take the form of anxiety, embarrassment, annoyance or increased effort in responding, incompatible response tendencies increase the cost of behavior and, hence, interaction.

#### Formation of the Relationship

Obviously, a relationship will never begin unless there is some initial contact between the dyadic members. In its most simple form, two people come in contact with one another if they are physically near one another (proximity). As in the case of rewards and costs, there are two broad headings of factors which influence the formation of a relationship; production of behavior and perception of behavior.

Thibaut and Kelley posited four major factors that affect which behaviors an individual will produce during the preliminary stages of interaction. These factors are strangeness, accessibility and cultural norms, autistic hostility, and autistic friendliness.

In addition to those factors which affect behavior production, Thibaut and Kelley focused on four factors which affect how behavior is interpreted. These factors are; availability of cues, the primacy affect, organization of perception, and states of the observer.

#### Evaluation of the Relationship

Once initial contact has been made between dyadic members, and they have sampled some outcomes, there will arise a need within them for some sort of standard by which to evaluate the acceptability of

of interaction outcomes. Thibaut and Kelley postulate two such standards called the comparison level (CL) and the comparison level for alternatives ( $CL_{alt}$ ). The CL is used by each member to determine the attractiveness of the relationship while the decision of whether to remain in the relationship or not is determined by his  $CL_{alt}$  (dependency on relationship). According to Thibaut and Kelley (1959), "...CL is a standard by which the person evaluates the rewards and costs of a given relationship in terms of what he feels he 'deserves.' Relationships, the outcomes of which fall above CL, would be relatively 'satisfying' and attractive to the member; those entailing outcomes that fall below CL would be relatively 'unsatisfying' and unattractive" (p. 21). Similarly, they state (1959) that, "... $CL_{alt}$  can be defined...as the lowest level of outcomes a person will accept in the light of available alternative opportunities. It follows... that as soon as outcomes drop below  $CL_{alt}$  the member will leave the relationship" (p. 21). The major purpose for postulating two standards is based on the fact that an individual may be forced to remain in what he considers an unattractive relationship. Therefore, although outcomes fall below his CL, he will remain in the relationship based on his  $CL_{alt}$ . In addition, because interaction requires that the two participants be interdependent, a relationship will be formed only if both members experienced outcomes are above their respective  $CL_{alts}$ .

Thibaut and Kelley viewed the CL as a neutral point on a continuous scale ranging from dissatisfaction to satisfaction. Any time the interaction outcomes fall above this neutral point the interaction will be viewed as attractive. Conversely, when outcomes drop below the neutral

point the interaction will be unsatisfactory. According to Thibaut and Kelley (1959), the CL is defined, "...as being some modal or average value of all outcomes known to the person (by virtue of personal or vicarious experience), each outcome weighted by its salience (or the degree to which it is instigated for the person at that moment)" (p. 81). We see, then, that an individual's CL will be affected (i.e., change) as he experiences new consequences which changes his hypothetical average value of outcomes. Likewise, the CL will be affected by situational variables which change the salience of specific outcomes.

Individual differences and comparison level.--what individual differences and comparison levels refers to here is the differences between individuals in power and control and how this affects their CL. An individual who in the past has experienced positive outcomes related to power and control will view presently unattainable goals as within his reach, and as such will tend to stress its reward aspects. Conversely, an individual who sees himself as powerless will continue to view unattainable goals as such and will tend to stress the high costs involved in its attainment. In addition, the CL will be higher for the former than the latter individual.

#### Power and Dependence

The final major area to be dealt with is concerned with power and dependence in dyadic relationships. It will be remembered that the  $CL_{alt}$  was defined as the minimum level of outcomes an individual will accept in view of the alternative opportunities that are available to him. In the same way that evaluation was described in terms of an

individual's CL, so must power and dependence be explained in terms of his CL<sub>alt</sub>. "CL, then is crucial in his attraction to the dyad, but CL<sub>alt</sub> is crucial in determining his dependency upon or, conversely, his power within it" (Thibaut and Kelley, 1959, p. 101). Stated differently, since interaction implies interdependence, it can be assumed that each dyadic member, in some way, controls the rewards and costs of the other member. The CL<sub>alt</sub> is the standard by which an individual can measure his degree of power or dependency in the present relationship compared to that of alternative ones. If the individual discovers that his power in this relationship is minimal compared to his best alternative relationship, he will probably dissolve the present partnership, assuming comparable CL's.

Thibaut and Kelley (1959) defined power as, "...A's ability to affect the quality of outcomes attained by B" (p. 101), and as such described two types of power; fate control and behavior control.

Fate control.--If A, by altering his own behavior can change B's outcomes, no matter what B does, A is said to have fate control over B. For example, A is a professor and B is a student in his class. If grades are based solely on A's personal evaluation of B, A is said to have fate control over B.

Behavior control.--If A, by altering his own behavior can make it desirable for B to alter his behavior, A is said to have behavior control over B (or vice versa). A and B are husband and wife. If A, who is usually sloppy, begins to clean up the house, it becomes desirable for B to stop nagging him to do so. Similarly, if B starts cooking tastier meals, she makes it desirable for A to come home for dinner. Each is therefore said to have behavior control over the other.

Thibaut and Kelley discuss the consequences of power in terms of both the dyad as a whole and the individual members. They believe that if a dyad is highly interdependent, the members will wield high and equal amounts of power over one another and as such will be highly cohesive. The individual member of a dyad who controls the greater power can look forward to considerable influence over the values and attitudes of his partner. Some of the strategies Thibaut and Kelley suggest for increasing power in a dyad include; improving one's ability to deliver rewards to his partner, building up the value of one's product (i.e., rewards one can offer), and reducing the alternatives available to the other member of the dyad.

Having spent considerable time describing and exploring Thibaut and Kelley's reward/cost theory of interaction outcomes, it is now appropriate to return to the original impetus for such a discussion; that is, to incorporate the paradigm of bystander intervention into this framework.

#### BIP: A Case for Interaction Outcome Theory

It will be remembered that the bystander intervention paradigm involves a victim and a bystander, both possibly unprepared and unaware of the emergency that is about to take place. The victim, in what might be interpreted as an ambiguous situation is in the process of being physically or psychologically harmed. The bystander, if he so chooses, intervenes by giving aid or sending for the same.

It will also be remembered that according to Thibaut and Kelley (1959), "...The essence of any interpersonal relationship is interaction. By interaction it is meant that they (the dyadic members)

emit behavior in each others presence or they communicate with each other (where)...there is at least the possibility that the actions of each person affect the other" (p. 10). In other words, for interaction to occur, each participant in an interdependent relationship must have the ability to affect the other's outcomes (i.e., rewards, payoffs, reinforcements, etc.). If the relationship between the victim and the bystanders in the bystander intervention paradigm is truly one of interaction, then this relationship must meet two criteria; the members must emit behavior in each other's presence or communicate with each other, and each member must have the ability to affect the other's outcomes.

The BIP meets the first criteria of interaction; that of emitting behavior in each other's presence or communicating with one another. In all naturally occurring instances (i.e., Kitty Genovese, Andrew Mormille, Eleanor Bradley) of this phenomenon, both the victim and the bystander were responding in each other's presence. In the case of Andrew Mormille, all of the subway passengers watched as he was stabbed in the stomach. Although he pleaded for help, none was offered. The reaction of these bystanders, although it was one of non-intervention, was emitted in his presence. Similarly, the New York Times account of the Kitty Genovese murder (March 28, 1964) attests to the fact that although no one actually helped, all of the thirty-eight neighbors came to their windows to see what was happening and one man actually called down to the killer to "Let that girl alone!" In essence, then, each bystander by being at his window was reacting in the presence of Miss Genovese. In addition, since Miss Genovese was calling to these

bystanders for assistance, she was both aware of and reacting to their presence.

In most experimental variations of the BIP, the same is true. That is, the bystander and the victim are responding in each other's visual presence (Piliavin, *et al.*, 1969; Latané and Darley, 1968). A number of other bystander effect studies are designed in such a way that although behavior is not emitted in each other's visual presence, the bystander and the victim do communicate with one another verbally (Darley and Latané, 1968; Latané and Rodin, 1969; Clark and Word, 1972; Levy, Lundgren, Ansel, Fell, Fink and McGrath, 1972). In all instances of the BIP then, whether real or experimental, the first criteria of interaction is met.

The second criteria, that of interdependency for the attainment of positive outcomes is somewhat more subtle. It is obvious that the bystander has the ability to affect the victim's rewards. If the bystander comes to the aid of the victim, he is either eliminating or at least alleviating the victim's suffering. It is also true, however, that the victim can affect the positive and negative outcomes (i.e., reinforcements) of the bystander. Thibaut and Kelley include as reinforcement of interactions both material loss or gain (money, objects) or psychological loss or gain (power, status). Therefore, the victim at least has the possible power to reward or punish bystander intervention via financial reimbursement or other forms of material gain as well as affecting the bystander's self-image for his actions. For interaction to continue, according to theory, not only must participants achieve positive outcomes, there must also be the maximization of positive

outcomes for each of the participants. That is, each individual tries to achieve the most reinforcement possible for interacting. Therefore, the greater the likelihood of reinforcement as perceived by the bystander, the greater the possibility that he will continue interacting with the victim via intervention. We see then, that for all intents and purposes, the BIP is an instance of interaction. As such, the consequences of bystander/victim interaction can be viewed in terms of rewards and costs.

In order to better understand the scope of Thibaut and Kelley's interaction outcome theory for the BIP, a reevaluation of previous experimental research is attempted within the reward/cost framework. The purpose for such an endeavor is not to devalue the implications of such studies, but rather to eliminate some of the confusion generated by conflicting interpretations.

#### Literature Review

Since its inception in 1968, considerable attention has been directed to the study of helping behavior in the context of bystander intervention. Research can be divided into three major areas: factors that affect the relationship among the bystanders, situational determinants of the BIP, and demographic and physical characteristics of the victim.

#### Relationship Among Bystanders

The effect of the number of bystanders present on subsequent helping as well the degree of intimacy among bystanders can be viewed as information related to the relationship among bystanders. As such,

both diffusion of responsibility among bystanders and intervention by friend versus stranger bystanders are included here.

Diffusion of responsibility.--The earliest research in the field of diffusion of responsibility was carried out by Darley and Latané (1968). They claimed that diffusion of responsibility was the major cause of non-action in an emergency situation.

Diffusion of responsibility takes its origins from two major mechanisms that explain mob action (Brown, 1965). The first is the feeling of anonymity that comes with being part of a crowd. This results in a diffusion of the individual's sense of personal responsibility. Because he blends into a large mass of others, each member of a crowd can feel relatively anonymous and therefore less responsible for his actions (or inactions), than otherwise would be the case.

The second mechanism to explain mob action was termed an "impression of universality" by Allport (1924). According to this view, the member of the crowd receives the approval of everyone. As a result, whatever he does seems to him to be the right thing to do.

Applying this to the Kitty Genovese murder, Darley and Latané made these observations. Each of the thirty-eight observers by seeing lights and figures in the other apartment house windows knew that others were reacting. These facts provide several reasons why any individual may have delayed or failed to help. The responsibility for helping was diffused among all thirty-eight observers. There was also a diffusion of any potential blame for not taking action. And, finally, it was possible that somebody unperceived, had already initiated helping action.

Darley and Latané state that when only one bystander is present in an emergency, if help is to come, it must come from him. Although he may choose to ignore it (out of concern for personal safety or desires not to get involved), any pressure to intervene focuses uniquely on him. When there are several observers present, however, the pressures to intervene do not focus on any one of the observers; instead the responsibility for intervention is shared among all the onlookers and is not unique to anyone. As a result, no one helps.

For these reasons, Darley and Latané hypothesized that the more bystanders there are to an emergency, the less likely, or the more slowly any one bystander will intervene to provide aid. In their study (1968), college students agreed to participate in an intercom discussion where each participant would remain totally anonymous. Subjects were led to believe that they were either part of a two, three, or six member panel. In each case, there was only one true subject and one victim. All other members were simply voices provided on tape by the experimenter. Midway into the discussion, the victim began to have an epileptic seizure. Presumably the experimenter was not present and it was up to the real subject to either summon him or help the victim directly. The experimenter, as his dependent measure, clocked the speed of the subject's response. The results supported Darley and Latané's hypothesis; 85 percent of the subjects in the alone condition (subject-victim) went for help as compared to 62 percent in the three-man groups and only 31 percent in the six-man groups. In addition, subjects in the alone condition responded more quickly (52 seconds) than their six-man counterpart group (166 seconds).

In this same study, Darley and Latané found no significant difference in helping behavior between males and females, or between experts and non-experts (pre-med vs. arts and sciences students). In addition, there were no reliable correlations between helping behavior and personality traits as measured by scales of Machiavellianism, anomie, and authoritarianism (Christie, 1964), Crowne-Marlowe's social desirability scale (1964), and Daniel and Berkowitz' social responsibility scale (1964). They also found no correlations between helping behavior and socio-economic background.

One interesting aspect of this study was the reactions of those subjects who did not help. The subjects exhibited great concern about the victim when the experiment was over. Invariably such subjects checked with the experimenter to make sure the victim was all right. Why then, didn't they respond? Darley and Latané contend that such subjects had not decided not to respond; rather they were still in a state of indecision and conflict concerning whether or not to respond. The emotional behavior of these non-responders, according to Darley and Latané, was a sign of their continuing conflict, a conflict that other subjects resolved by helping.

If Darley and Latané's study is analyzed within the framework of Thibaut and Kelley's interaction outcome theory, diffusion of responsibility can be seen as an instance of relationship evaluation. In the case of the lone bystander, the only relationship available to him involves the victim. Therefore, although his evaluation of the relationship may fall below his CL, he will remain in the relationship and continue interaction (i.e., intervention) based on the

fact that this relationship exceeds his  $CL_{alt}$ . This is not the case, however, for multiple bystanders. Once again, interaction with the victim may not be very attractive, but now each bystander has the option of engaging in an alternative interaction with any other bystander. Such an interaction would incur lower costs since it does not involve the possibility of threat, harm, or increased effort in responding and, therefore, raises their  $CL_{alt}$ . As stated previously, if an individual's CL falls above outcomes and below his  $CL_{alt}$ , he will discontinue the relationship. What we see then is that in the case of multiple bystanders, each bystander chooses as his partner in interaction any or all of the other bystanders rather than the victim.

The idea of alternative relationships would also help to explain the results obtained by Levy et al. (1972) involving diffusion of responsibility in a non-threatening situation. The experiment was designed to determine if the bystander effect could be produced in a non-emergency situation; one where neither the bystander nor the victim was threatened, but one which nonetheless demanded action from the bystander. A subject waiting either alone or with one or two confederates heard an intruder demand entry into the experimental room where subjects were filling out a questionnaire. Treatments were varied as to whether intruder demands increased in intensity or remained the same, and whether confederates appeared to notice the demands or not. Focusing on response latencies, Levy et al. found helping rate was most rapid for the alone subjects, followed by subjects participating with one confederate. Subjects working with two confederates took the most time in responding. In other words, the bystander effect found by Darley

and Latané was demonstrated for each of the present experimental treatments, none of which involved fear or a real emergency situation but each of which involved some intrusion or demand for response on the part of the naive subject. As with Darley and Latané, bystanders in this experiment had the option of continuing interaction with one another or entering into a new interaction with a relative stranger (victim). Although possible injury to the bystander was not a factor in helping, interaction did involve an increased effort in responding (getting up and opening the door). The lone bystander, having no alternative relationship from which to choose, interacted with the victim. The decision to help on the part of a bystander, therefore, may have had less to do with the number of other bystanders present as it did with the attractiveness and dependency such other relationships offered compared to one with the victim. In addition to attractiveness and dependency, the guilt aroused in the lone bystander for failure to help might actually have increased the cost of not interacting. Helping the victim eliminates this guilt, thus increasing the reward/cost ratio.

Another case in point concerns the results obtained by Ross (1971). He found that a bystander paired with two children responded to a victim's plea more rapidly than one who was paired with two confederate peers. He interpreted these results in terms of an increase in responsibility. However, he could not explain why a single bystander responded faster than his adult/child subject. If looked at in terms of  $CL_{alt}$  the results become clearer. Once again, the alone bystander had no alternative relationship to consider, hence he helped. The adult/child subject did have an available other relationship albeit not as appealing

as the one offered to the adult/peer subject; hence the former may eventually have chosen the victim for his partner and did so more quickly and more often than the latter, but not as often or quickly as the single bystander.

Friends vs. strangers.--Assuming there is more than one bystander present to an emergency, will the degree of intimacy between bystanders affect their probability of intervention?

This question of whether friends or strangers are more responsive bystanders was addressed by Latané and Rodin (1969). Subjects were asked to wait either alone, with a friend, or with a stranger (confederate or naive) to participate in a market research study. As they waited, subjects heard someone fall and apparently injure herself in the room next door. Whether the bystanders tried to help and how long they took were the main dependent variables. Results indicated that two friends helped the same percent of time (70 percent) as single subjects, as compared to 40 percent for two strangers and only 7 percent in the confederate condition. This experiment may also be viewed within a reward/cost framework. A naive bystander, paired with a stranger, must choose between a continued interaction with this stranger or a new interaction with a victim. This new victim interaction involves a higher cost and no guarantee of greater rewards than the subject's present relationship. The same might not be true of two friends. Friends might not feel forced to choose between each other or the victim. Their relationship to one another may be independent of victim-interaction and as such they may consider themselves responding as a single individual. As such, they are similar to the alone bystander. Considered this way, it is not

surprising that Latané and Rodin (1969) found identical degrees of helping (70 percent) between two friends and single bystanders. Rather than interpreting this percentage as inhibition due to friendship as Darley and Latané did, it indicates joint action for a single response. Latané and Rodin themselves state (1969), "...Friends...often discussed the incident and arrived at a mutual plan of action" (p. 200).

The second explanation of why friends are more willing to intervene than strangers concerns the notion of cost incurred in interaction. Thibaut and Kelley assert that the greater the difficulty an individual has in exhibiting a particular set of behaviors, the greater the cost of interaction. They cite anxiety, embarrassment, physical or mental strain and competing response tendencies as factors that increase cost. Referring back to the results of Latané and Rodin, one finds these experimenters saying, "...It may be that people are less likely to fear possible embarrassment in front of friends than before strangers" (1969, p. 200). In other words, a decrease in possible embarrassment would decrease the relative costs of victim interaction and would increase the probability of intervention. If fears of embarrassment is less of an issue between friends than strangers, one would expect, based on the desire for positive outcomes, that friends would interact with a victim more often than two strangers. Such is the case.

#### Situational Determinants of the BIP

Factors inherent to the BIP which affect the probability of bystander intervention can be discussed as situational determinants. Two of the major areas studied deal with the effect of situational ambiguity and geographic location on subsequent helping.

Ambiguity.--As noted earlier, ambiguity is defined as an event that is uncertain or vague. With reference to the BIP, Latané and Darley (1968) became interested in how bystanders interpret an ambiguous event. When faced with such an event, they suggested the individual bystander is likely to look at the reactions of the people around him and be influenced by them. It was predicted that the sight of other non-responsive bystanders would lead the individual to interpret the emergency as non-serious and therefore not act. It was also predicted that the dynamics of the interaction process would lead each of a group of naive onlookers to be misled by the apparent inaction of the others into adopting a non-emergency interpretation of the event and a passive role. Darley and Latané termed this "pluralistic ignorance" (p. 216). These experimenters had subjects fill out a questionnaire either alone, in groups of three, or with a non-responsive confederate. Midway through the questionnaire, the experimenter began to introduce smoke through a vent such that by the end of the experimental period, vision was obscured. Darley and Latané's results support their predictions. An individual exposed to a room filling with smoke in the presence of passive others, themselves remain passive (only 10 percent sought help). Groups of three naive subjects were also less likely to report the smoke (38 percent) than solitary bystanders (75 percent).

Clark and Word (1972) also studied the effects of ambiguity on intervention. In their study, either one, two, or five naive male subjects were led to believe that they would be discussing sexual topics with a female student under the guise that the experimenter

was interested in observing which combination of males would be more effective in changing her attitude. While waiting for the experiment to begin, subjects overheard a maintenance man, in the adjoining room, fall. In the low ambiguity condition he cried out in agony, whereas no verbal cues of injury were emitted by the victim in the high ambiguity condition. Clark and Word hypothesized that bystanders would be more likely to respond to the pleas of an individual in distress than when no such pleas were heard. Their results supported their hypothesis. Helping behavior occurred regardless of group size in every case in which subjects were exposed to an unambiguous emergency. In the high ambiguity condition, however, bystanders responded in only 30 percent, 20 percent, and 40 percent of the time in the one, two, and five person groups respectively. In addition, the mean reaction time in seconds was significantly lower in the low vs. high ambiguous conditions.

Clark and Word interpreted their results as indicating that the characteristics of the emergency situation are major determinants of whether an individual or group is likely to respond to the pleas of an individual in distress. Individuals who are confronted with a highly ambiguous emergency situation are less likely to help a victim than are bystanders who are exposed to a less ambiguous situation, especially when in the presence of non-reacting others. According to Clark and Word, "...when an emergency is non-ambiguous involving severe negative consequences to another person with minimal negative consequences for the person(s) who help(s), and when the amount of effort required for intervention is minimal, derogation of the victim is not an appropriate response, and diffusion of responsibility is

not likely to occur, individuals will intervene in an emergency situation" (p. 399).

Although the experiments are quite different, both sets of researchers (Latané and Darley, 1968; Clark and Word, 1972) reported experimental results indicating an inverse relationship between ambiguity and helping behavior. They interpreted these findings in terms of the demand or emergency stimulus. All four experimenters believed the more cues of distress emitted by the victim, the less ambiguity of the demand stimulus, and the greater the degree of intervention. However, as reported earlier, the results of Levy et al., (1972) indicated that even in situations involving low ambiguity of demand stimuli, multiple bystander intervention is minimal. The discrepancy between these studies can be somewhat eliminated when reactions are explained in terms of the desire for positive outcomes.

In the experiment by Clark and Word (1972), subjects overheard a maintenance man fall and apparently injure himself in an adjacent room. In the low ambiguity condition, the victim called out for assistance, high ambiguity subjects did not hear these pleas. For a naive subject to intervene, he would have to discontinue interacting with the confederate bystanders. This would involve analyzing the new victim relationship in terms of rewards and costs. We have already mentioned that the costs involved in such an interaction can be high (harm, embarrassment, etc.). What about the rewards? By calling out for assistance (low ambiguity) the victim is cueing the subject that he will greatly appreciate interaction and as such, he (the victim) is increasing the probability of rewards while removing the cost of

embarrassment, thus making intervention more salient. In highly ambiguous situations this is not the case. While costs are obvious, comparable rewards are not. Similarly, the increased effort in responding necessary on the part of the subjects in the Levy *et al.* experiment might not be counterbalanced by the rewards offered by the victim for opening the door. Indeed, perhaps this stranger does not belong there in the first place, therefore increasing costs even more.

Despite the finding of these experiments, the question still remains as to why all of the thirty-eight witnesses to the Genovese slaying, after hearing her pleas for help, and from the safety of their own apartments, failed to telephone for help.

The answer may be that in the case of the Genovese bystanders, in order to eliminate any possibility of retribution of the part of the assailant, assistance would have to be anonymous eliminating any possibility of rewards. In essence, then, ambiguity may be less a matter of the social situation or the emergency stimulus as it is a means of increasing or decreasing the salience of rewards for intervention.

Geographic location.--Another topic related to situational determinants and helping deals with geographic location. When comparing the results of BIP studies from Darley and Latané with those of Clark and Word, we find that although the designs were identical and utilized a comparative population (college students), they observed differential helping responses. More specifically, intervention occurred more frequently among Clark and Word's subjects than those of Darley and

Latané. It is important to note that the former's subjects lived in Tallahassee, a small southeastern university town, compared to the home of the latter's subjects, New York City. This difference in geographic location may affect bystanders' individual differences in comparison level. It is not earth shattering to hypothesize that life in a large urban center is different from life in a small town. Therefore, it is not surprising that people who live in such divergent atmospheres will respond differently to similar situations. One such situation concerns perception of personal power. Milgram (1970) in writing about urban life states, "...The interposition of institutions between the individual and the social world, a characteristic of all modern society and most acutely present in the large metropolis, has its negative side. It deprives the individual of a sense of direct contact and spontaneous integration in the life around him. It simultaneously protects and estranges the individual from his social environment" (p. 154).

Similarly, Thibaut and Kelley state that an individual who in the past has experienced positive outcomes related to power and control will view presently unattainable goals as within his reach, and as such will tend to stress the reward aspects of such goals. Conversely, an individual who sees himself as powerless will continue to view unattainable goals as such and will tend to stress the high costs involved in its attainment.

In other words, individuals from large metropolitan areas are accustomed to having power controlled by anonymous institutions with whom interaction is very frustrating and hence costly. Therefore, it

is not surprising that they view themselves as powerless in reference to attaining presently unattainable goals. This in turn would cause them to stress the cost aspect of ever getting involved. Small town dwellers, on the other hand, do not have this problem of "overloading" (Milgram, 1970, p. 153) and as such feel more powerful and personally responsible for their actions. Since interaction in such an environment is more successful such individuals would tend to stress the rewards rather than the costs of relationships. Since past experiences based on geographic location can affect an individual's perception of present outcomes (Milgram, 1970), one would expect a city dweller to be less prone to help a person in trouble. If one could empirically measure an individual's perception of interaction in terms of his emphasis on rewards and costs, one would expect to find a significant difference in interaction approaches between these two populations.

#### Demographic and Physical Characteristics of the Victim

This third area deals with the effect of victim/bystander similarity along demographic lines on bystander intervention. Research has focused on the state of the victim, his race, and sex.

State of the victim.--The state of the victim refers to his physical appearance at the time of the emergency. A victim may look conservative or liberal, rich or poor, sick or healthy, drunk or sober. Each of these states may affect the bystander's perception of the victim, which in turn, may influence his intervention decision.

An experiment by Piliavin, Rodin, and Piliavin (1969) focused on the effect of the state of the victim (drunk vs. ill) on intervention. In addition, race was a variable. Theirs was a field experiment

conducted in a New York City subway train by teams of four college students. The emergency occurred within a seven-minute interval between two subway stations. Each time, the victim began to stagger and eventually collapsed to the floor of the car. In half of the cases, a confederate came to the victim's aid. In the other half, the fate of the victim was solely in the hands of the naive bystanders. One of the findings of Piliavin *et al.* was that an individual who appeared to be ill was more likely to receive aid than one who appeared to be drunk. In addition, given mixed groups of men and women and a male victim, men were more likely to help than were women. Given mixed racial groups, there was some tendency for same race helping to be more frequent (especially if the victim was drunk rather than ill). And, finally, they found no relationship between the number of bystanders and the speed of helping (i.e., no diffusion of responsibility). These results appear to be contradictory with those obtained by Darley and Latané (1968). There were, however, three major differences between this study and both the study of Darley and Latané and the Genovese murder. First, the bystanders in this study were literally trapped in the subway car with the victim for seven minutes. The victims in previous bystander intervention studies were always in rooms adjoining that of the bystanders. Therefore, the emergency was always out of sight and bystanders were free to leave if they so desired. Similarly, the witnesses to the Genovese murder did so from the safety of their own apartments, quite a distance away from the street slaying. Second, there could be no uncertainty (ambiguity) about the victim's needing help in this study. This was not true for the Darley and Latané study.

And third, there was no possibility of personal injury to a bystander who helped an unconscious victim, whereas in the Darley and Latané study, at least, personal harm was not totally eliminated (perhaps the victim would attack the helper while having his seizure). It is even possible that the "I don't want to get involved" attitude of the Genovese bystanders was an indication of the fear of retaliation by the murderer or one of his convict acquaintances. Any one of these differences, and all three acting together, could easily account for the contradictory results.

A second study on victim state (Emswiller, Deaux, and Willits, 1971) was carried out to determine whether similarity in appearance between helper and victim would increase the rate of helping behavior. Victims were dressed either as "hippies" or "straights" (quotes added). They approached prospective helpers who were deemed as either similarly or dissimilarly dressed and requested a small favor. Results indicated a significantly greater number of persons willing to aid someone who resembled them in appearance. The authors hypothesized that dress styles provide a basis for assumptions about other areas of similarity and create a greater willingness to help a similar other.

Race and sex.--The effects of race and sex of the victim on bystander intervention have typically been studied simultaneously and as such, will be reported together.

Gaertner and Bickman (1971), in their study of the effects of race on helping behavior, hypothesized that an individual of one race might view another individual of his race as similar, and as such, would be willing to aid him more often than one of a different race. Their

research was conducted in the field and included over one thousand black and white subjects (helpers). Each subject received what was supposedly a wrong number telephone call. The caller (victim) was clearly identifiable as either black or white, by his voice characteristics. The victim explained that he was attempting to reach his auto mechanic from a pay phone booth which was located on a major parkway (where his car had just broken down). The victim further claimed that he had just spent his last dime making this phone call. The bystander could aid the victim by contacting the car mechanic for him. Gaertner and Bickman's results indicated that while black bystanders extended approximately equal levels of assistance to both black and white victims, white bystanders helped black victims less frequently than their white counterparts. Ignoring the race of the bystander and the victim, the experimenters found that male subjects helped more often than female subjects.

Wispe and Freshly (1971) also studied the race and sex effect on degree of helping in a naturalistic setting. A total of 176 black and white, male and female subjects, aged 20-60 found themselves in a position to help or not help a young black or white female confederate whose bag of groceries had just broken in front of a supermarket. Their results showed that significant sex differences occurred in helping behavior for the black but not for the white sample and that women tended to be less helpful toward women of the same race. With this one exception, there was no racial difference in helping behavior. These findings run counter to the results of the Piliavin et al. study (1969) where helpers tended to aid victims of the same race more than those of a different race.

Bryan and Test (1967), in two field studies, found that black Salvation Army solicitors received significantly fewer contributions than did white solicitors, although there was no difference in the amount of money donated. The effect of race of the victim (soliciter) would also help to explain Gaertner and Bickman's (1971) results that white bystanders help black victims less frequently than chance.

Despite the diversity, all of these studies stress the importance of the role of external cues to helping behavior. In the initial stages of the bystander/victim relationship, the availability of cues is limited. Both the bystander and the victim evaluate one another based on superficial external cues such as physical appearance. Then, working from this first impression, each individual begins to evaluate the relationship. Thibaut and Kelley believe that despite cultural norms against initial self-disclosure, similarity of attitudes, abilities, needs, etc. facilitate communication and increase the probability of interaction.

Returning to the BIP, Emselfiller *et al.* (1971), concluded that similarity along dimensions such as dress styles and race provide a basis for assumptions about other areas of similarity and create a greater willingness to help a similar other. In essence then, our initial impression of another based on his physical appearance leads us to either a closer or more distant identification with him. If someone looks similar to another in dress, race, language, etc. the probability in the eyes of the first that the second is similar to him along other dimensions such as values and interests is increased. Thus, both members are more likely to anticipate a pleasant interaction and would be more likely to pursue one.

It has already been stated that similarity between interacting partners is both rewarding and cost reducing at the same time. Therefore, the results of these studies can be reinterpreted in terms of interaction outcomes. When a bystander is confronted by a victim, an initial first impression is formed based on outward appearance. The more similar the victim is to the bystander along the various physical dimensions, the more likely the bystander will assume intrinsic similarities. Similarity, in turn, increases interpersonal attraction (Byrne and Nelson, 1965) and the salience of positive outcomes for the bystander (Thibaut and Kelley, 1959). The result, then, is an increase in the possibility of intervention.

#### Summary

In looking back over the literature reviewed here, one finds that all of the research has focused on either the bystander, the victim, or the environmental situation as separate entities. With reference to the bystander, experimenters have varied; the number of bystanders to an emergency (alone vs. two or more), the age of the bystanders (adult vs. children), the sex of the bystander, and their race (black vs. white). Victims were varied as to their race (black vs. white), and physical state (drunk vs. ill). The situational determinants that have been studied range from: geographic location (urban vs. rural), to degree of ambiguity (high vs. low). Theorists have searched in vain to account for bystander behavior (i.e., social responsibility, reciprocity, and interdependence theory). One begins to wonder then, why researchers have focused on the victim, the bystander, and the environment as separate entities when their interaction is so eminent and vital to the

entire paradigm? In order for intervention to occur, there must be some degree of interaction between the victim and the bystander, and between the bystander and the environment. Since research has shown that both quantity and quality of human interaction (Festinger, Schachter, and Back, 1950) are important determinants of behavior, attention will be focused on bystander/victim interaction first.

#### Background of the Present Experiment

##### Bystander/Victim Interaction

The earliest reference to bystander/victim interaction can be found in an article in Nation by Milgram (1964). The article was prompted by the same incident which prompted all subsequent research in this area, the Kitty Genovese murder.

Referring to the relationship between Miss Genovese and the thirty-eight bystanders, Milgram states, "...Many facts of the case have not been made public such as the quality of the relationship between Miss Genovese and the community, the extent to which she was recognized that night and the number of persons who knew her" (p. 604). He goes on to say, "...in New York City it is not unusual to see a man sick with alcohol, lying in a doorway; he does not command the least bit of attention or interest from those who pass by. The trouble here, as in Kew Gardens, is that the individual does not perceive that his interests are identified with others or with the community at large" (p. 604).

Unfortunately, the literature pertaining to this phenomenon, lack of interaction and hence lack of interpersonal attraction between victim and bystander, is scarce. Subjects in one experiment in this area (Epstein and Hornstein, 1969) believed that they were involved

in an impression-formation and decision-making task. They were each confronted with a dilemma; they had to choose between earning money for themselves while allowing another to be shocked, or foregoing the profit in order to prevent the victim from being harmed. One-half of the helpers anticipated a penalty if they chose to allow the victim to be shocked; the rest held no such anticipation. In addition, there were three conditions of interpersonal attraction; like, dislike and (a control) no manipulation. Epstein and Hornstein's results indicated that subjects (helpers) who liked the victim chose to help more often when they anticipated punishment for themselves, but chose to help less often when no punishment was anticipated. As expected, the reverse was true for helpers who disliked the victims. In other words, a bystander will help a victim if at the same time he avoids hurting himself. However, if there are no unpleasant consequences in store for a bystander who neglects to help a victim, the victim will receive little or no assistance from the would-be helper.

In another study, working within the framework of the Zeigernik effect, Hornstein, Masor, Sole and Heilman (1971) found that persons were more likely to complete the interrupted goal attainment of liked than disliked others. And, Emselfiller et al. (1971) found that bystanders were more interpersonally attracted to and therefore more likely to aid victims who were culturally or physically similar than dissimilar to themselves.

Interpersonal attraction has also been shown to be affected (i.e., increased) by having the bystander simply meet the victim prior to the emergency. Darley and Latané (1968), in their epileptic victim

study observed the effects of prior acquaintance with the victim on degree of bystander intervention. The results were impressive. Subjects who had met the victim, even though it was for less than a minute, were significantly quicker to report his attack than any other subjects in the six-person condition. When questioned later, these subjects explained their reactions to the emergency. As opposed to subjects in any other group, some of the bystanders who had previously met the epileptic victim revealed that they had actually been able to see him (in their own minds) having the seizure. It appears that if one can picture a certain specific individual in distress, the likelihood of bystander intervention increases.

Although the literature on the effects of interpersonal attraction between the bystander and his victim are scarce, a number of points can be made regarding the previous section. It will be remembered that bystander intervention is a particular case of helping behavior. In all such instances there is a helper (bystander) and a prospective helper (victim). Previous research on helping behavior has shown that the level of interpersonal attraction, as measured by physical characteristics, attitude similarity, race, and prior acquaintance affects the probability of help being offered. Bystander intervention is different from helping behavior in that the emergency situation is often ambiguous for the bystander. However, since both require one individual to come to the aid of another individual, it is not unlikely that increased interpersonal attraction should affect the bystander much the same way it affects the helper; that is the greater the interpersonal attraction between the bystander and his victim, the greater the

likelihood of intervention. One means of enhancing bystander/victim interpersonal attraction is through increased attitude similarity.

#### Attitude Similarity Between Bystander and Victim

One hypothesis which has continually been supported is that people like those who possess attitudes similar to their own (Newcomb, 1947). It has also been shown that similarity of attitudes increases the degree of interpersonal attraction (Byrne and Nelson, 1965). Within the framework of helping behavior, attitude similarity functioning as an exogenous determinant of interaction outcomes, serves to increase the salience of rewards while decreasing its relative cost. This is accomplished by the fact that interaction with a similar other decreases the likelihood of competing response tendencies, strangeness and inaccurate first impressions while increasing the probability of social support and autistic friendliness. Similarly, it has been shown (Smith *et al.*, 1972) that attitudinal dissimilarity hampers continued interaction.

The variable of attitude similarity has been applied to the BIP with reference to inter-bystander influence (Smith *et al.*, 1972). As was predicted, perceived attitudinal similarity between bystanders significantly reduced emergency intervention. Only when bystanders believed themselves to be attitudinally different from one another was victim interaction in the form of help giving initiated. It is surprising, therefore, that the relationship between victim/bystander attitude similarity and subsequent bystander intervention has not been explored. It will be remembered that the relative cost of interrupting an ongoing emergency is high. There is the danger of threat or harm in addition to possible embarrassment or anxiety

caused by overreacting. The rewards for intervention are less obvious. Therefore, unless the victim can, in some way, cue the bystander of forthcoming rewards, the probability of bystander intervention is minimal. This can be viewed in another way. When the victim and the bystander have little in common, the bystander perceives that the victim has little or nothing to offer him in terms of a rewarding interaction. Hence, the bystander has complete fate control over the victim. If the bystander helps, the victim is rewarded; if he does not help, the victim suffers. If, however, the bystander perceives that the victim has something to offer him (in the sense of being alike) similarity acts as a trump card for the victim and the relationship becomes one of behavior control. That is, the victim, by holding similar attitudes, is potentially more rewarding and can make it desirable for the bystander to intervene.

Clark and Word (1972) observed that cries for help by the victim cued the bystander in such a way as to reduce ambiguity, thereby increasing the likelihood of reward salience. The present author believes that attitude similarity with the victim as perceived by the bystander functions much the same way. And, likewise, dissimilarity in attitudes has the reverse affect. That is, once the bystander perceives the victim to be similar to himself, interaction becomes more attractive since the victim now has a greater potential for rewardingness. When the bystander perceives himself to be dissimilar to the victim, however, interaction becomes more costly since the victim, by being different, has lost much of his reward power.

### Bystander/Environmental Interaction

As stated previously, in order for intervention to occur, there must be some degree of interaction between the victim and the bystander and between the bystander and the environment in which the emergency occurs. Having discussed, in detail, the interaction between the bystander and the victim it is appropriate to turn our attention now to bystander/environmental interaction.

Very little research has been done on bystander/environmental interaction. Those experiments done, exist under the heading of environmental familiarity.

### Environmental Familiarity

One study, by Granet (1971) took place in both a New York City airport and subway station, and involved helping a young man on crutches. Granet hypothesized that persons who were familiar with the physical location in which the emergency took place would be more likely to help the victim. The results on helping supported his prediction. In both the airport and the subway, there was a significant correlation ( $r = .29, p < .05$ ;  $r = .31, p < .05$ , respectively) between familiarity and responding to the emergency.

Granet interpreted these findings to indicate that a person who is more familiar with the environment is more aware of the way in which the environment works. He is not overloaded with stimuli, and his fears of embarrassment or, in the case of the subway, actual physical harm, have moderated. He may have a greater stake in keeping the environment safe. Thus, he is more likely to help.

Three developmental studies (Weizman, Cohen, and Pratt, 1971;

McCall and Kagen, 1967; Moseley, Faust, and Reardon, 1970) have also examined the effects of environmental familiarity. Their results suggest that subjects are more willing to engage in novel experiences within familiar settings than when placed in an unfamiliar environment.

Although the research on environmental familiarity and helping behavior is limited, the implications are clear. Environmental familiarity, by decreasing a bystander's fears of embarrassment and actual physical harm, decreases the potential costs of helping. In addition, the salience of rewards for intervention increase as his stake in keeping the environment safe increases, thus facilitating a desire to help.

#### The Present Experiment

##### Attitude Similarity

Based on theoretical as well as empirical data, the following hypothesis has been generated in reference to the affect of bystander/victim attitude similarity on bystander intervention:

- I. Bystander intervention will occur more frequently and more rapidly when a bystander perceives himself to be attitudinally similar rather than dissimilar to the victim.

##### Environmental Familiarity

Based on the research of Granet (1971), the following hypothesis has been generated with respect to bystander/environmental interaction and its effect on subsequent bystander intervention:

- II. Bystander intervention will occur more frequently and more rapidly when a bystander is familiarized with the emergency setting prior to the emergency than when he is not.

In addition, the following secondary hypotheses have been generated:

1. Bystander intervention is negatively correlated with bystander hometown size.

This hypothesis is based on the notion that individual differences and CL will be affected by a bystander's hometown size, as measured by population density, and as such, urban bystanders should be less likely to render aid to a victim than rural bystanders.

2. Bystander intervention is not correlated with age of bystander, family income, educational background of parents, number of brothers, number of sisters, and number of siblings in the bystander's family.

This hypothesis is based on the belief that these variables do not affect an individual's CL and therefore would not enter into the helping decision.

3. There is no relationship between bystander intervention and bystander social desirability needs.

Although some experimenters (Darley and Latané, 1968) have inferred a relationship between bystander intervention and social desirability, this author does not expect to observe a significant correlation between these two factors since social desirability is not systematically related to interaction outcomes.

4. Bystander intervention is not affected by the sex of the bystander.

This hypothesis is based on the results of Gruder and Cook (1971).

In an experiment on sex, dependency, and helping, Gruder and Cook found no helping effects due to the sex of the potential helper. The results of their experiment imply that sex differences observed in previous research were probably due to the sex of the person receiving help and not to the sex of the person giving it. Since the victim in the present experiment is a female, equal help from both male and female bystanders is anticipated.

## CHAPTER II

### METHODOLOGY

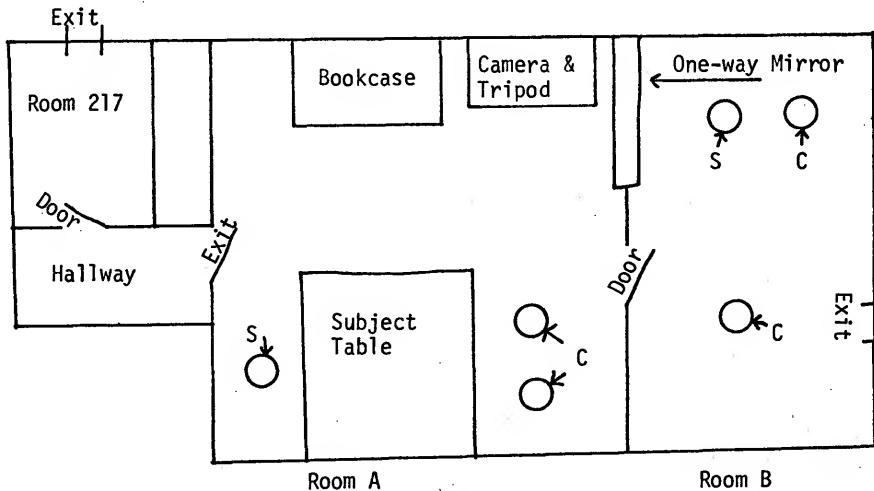
Subjects participated either alone, or with two confederates in a study on personality and visual perception. During the experiment, they heard someone fall and apparently injure herself in the room next door. Whether they tried to help and how long they took to do so were the main dependent variables of the study.

#### Subjects

One hundred twenty-eight introductory psychology students from the University of Florida served as subjects (Ss). There were an equal number (64) of males and females. All Ss were recruited via a sign-up sheet in the psychology department under the experimental title Personality and Visual Perception. In order to avoid suspicion on the part of the Ss, two additional names were added to the sign-up sheet in the confederate conditions, making it appear that some students were being tested in groups of three.

#### Procedure

The experiment took place at the University of Florida. The rooms were set up according to the following floor plan.



All Ss, regardless of condition, were met by the experimenter in room 217 and led back into the experimental rooms. Room "A" which became known as the equipment room, contained an old bookcase stacked high with books and papers, a large movie camera on a high tripod (the visual perception apparatus), and an Akai tape recorder (which was concealed behind books and folders) in addition to the table and chairs at which the Ss worked. Overall, the room appeared crowded and disorganized. Room "B" contained three chairs which faced the one-way mirror. In all conditions, the naive S sat in the chair designated "S" on the floor plan.

The experiment involved the manipulation of three variables; familiarity (high versus low) with the emergency setting, attitudinal similarity (high versus low) with the victim, and number of bystanders (S alone versus S+ two confederates) to the emergency.

The study, therefore, was a  $2 \times 2 \times 2$  design involving a total of eight conditions. A total of sixteen Ss (eight male and eight female) were run in each condition. Each S, then, was involved in one of the following eight conditions:

<u>Condition</u>	<u>Description</u>
1	High Familiarity (F)- High Similarity (S)- S Alone
2	High F- High S- S+ 2 Confederates
3	High F- Low S- S Alone
4	High F- Low S- S+ 2 Confederates
5	Low F- High S- S Alone
6	Low F- High S- S+ 2 Confederates
7	Low F- Low S- S Alone
8	Low F- Low S- S+ 2 Confederates

Part I: Personality

High familiarity vs. low familiarity.--In the High F condition Ss were directed from room 217 into room A. Upon entering the experimenter (E) said: "Hello. My name is Ellen Weiss. I am Dr. Severy's graduate assistant and although he is in charge of this experiment, I run the Ss for him. (The graduate assistant was dressed casually to give a non-professional appearance). By the way, please excuse the mess in here but quite a few of us have to use this room and it tends to get cluttered after a while. The name of this study is Personality and Visual Perception. The first phase of the experiment deals with Personality. I've given you a questionnaire to fill out. In addition to the cover sheet, this questionnaire contains a series of statements about different issues and ideas. Each statement is followed by a

scale ranging from 'strongly agree' to 'strongly disagree'. What we want you to do is to indicate your agreement or disagreement with each statement by marking the appropriate word or words on each scale. Take your time and read each item carefully before indicating your attitude towards it. Are there any questions? In addition, in accordance with department rules, you are free to leave at any time if you desire not to continue the experiment."

This final comment was added to give the S the choice of leaving during the subsequent emergency. The E then went on to say: "While you're filling out your questionnaire, I'll be setting up this equipment for the Visual Perception phase of the experiment. I'll try and make as little noise as possible." (While Ss were filling out the questionnaire, the E subtly commented on the general disorder and instability of the bookcase, table, etc.).

The questionnaire that all Ss completed contained a cover sheet and 53 items (Appendix A). In addition to the complete Crowne-Marlowe Social Desirability Scale, items were selected which pertained to attitudes toward Negroes, friends, work, etc. Ss in the High F condition also rated the emergency room on a Semantic Differential scale, forcing them to attend to the room (Appendix B).

Low F--Ss in the Low familiarity condition were led directly into the second room (room B). E made the same comment about the messiness of room A as they walked through it. Instructions were identical except this time E said, "Go ahead and fill out the questionnaire. I'm going next door (room A) to set up the equipment

for the second phase of the experiment. I should be back before you finish. If you finish before I return; just knock on the door for me."

High similarity vs. low similarity.--All Ss completed the Personality questionnaire. In the High- S condition, E took the completed questionnaire from S and said, "I have to wait for the camera to warm up before we begin phase two." (E then began to flip through the completed questionnaire. After doing so she comments) "That's really unreal. I filled out this questionnaire once for Dr. Severy and our answers are almost identical. Far out!"

In the Low- S condition the procedure was identical except in this condition E said, "You know, I bet that we're very different kinds of people. I filled out this questionnaire once for Dr. Severy and I think we answered lots of these questions differently."

Confederate condition.--Two undergraduate psychology majors served as confederates. The confederates were instructed to always position themselves in the chairs designated "C" on the floor plan. In addition, the same-sex confederate always sat next to S during the emergency. The confederates were also told to answer the personality questionnaire at a slower pace than S in order to give E time to make the appropriate comments.

#### Part II: Visual Perception

All Ss were instructed to sit in their chairs in room B facing the one-way mirror. (Ss in the High- F condition were led from room A into room B). The exit door was left slightly ajar to alert

Ss as to a means of escape, if that was their choice of action. After S (and confederates if applicable) were seated, E proceeded to say, "First let me close this hallway door. This second phase involves Visual Perception. I've given each of you a Visual Perception questionnaire and an answer sheet (Appendix C). In a few minutes a series of two lights will appear on the mirror along this opening. What we would like you to do is to write down the approximate distance between each pair of lights. For example, if you believe the first two lights are six inches apart, write 'six inches' next to trial one on the answer sheet in front of you. Do the same for each pair of lights. There will be a total of 100 trials in all. I'll be working the lights from the equipment room next door (room A). On the other side of this panel is a speaker which is hooked up to a microphone in my room, so I'll be talking to you through a mike. I'll say 'ready, begin' before each trial to cue you that the lights are coming on. The lights will be on for one second with a ten second interval between trials. Are there any questions? If not, I have a few more things to do in the equipment room. Why don't you begin answering the Visual Perception questionnaire and when you're finished with it, we'll begin the lights."

#### The Emergency

E then went back into room A and turned on a pre-recorded tape. It began with E saying, "I'll be ready in a minute. I just want to clear some of this junk off the table."

If S listened carefully, he would have then heard E climb on a chair to stack a pile of books on the bookcase. Even if he were

not listening carefully, he would hear a loud crash and a scream as the chair collapsed and E fell to the floor..."Oh, my God, my foot... I...I can't move it. Oh...my ankle." Then E moaned. "I...can't... get this...thing...off me." She cried and moaned for about a minute longer, but the cries gradually got more subdued and controlled. Finally, she muttered something about getting outside, knocked around the chair as she pulled herself up and thumped to the door. The entire incident took 125 seconds (Latané and Rodin, 1969).

If S intervened, the post-experimental questionnaire and interview began immediately. If S did not intervene within the 125 seconds, E waited an additional minute and then entered room B and began the post-experimental session. In the confederate conditions, the confederates had been instructed as how to react during the emergency. They were to look up, shrug their shoulders and then continue writing. If S asked them for advice or suggestions, confederates always turned the question back to S. For example; Subject: "What do you think is going on in there?" Confederate: "I don't know. What do you think is going on in there?" Subject: "Do you think we ought to go look?" Confederate: "Do you think we ought to go look?", etc.

The main dependent variable was whether the bystander (S) took action to help the victim (E) or not. When E began the tape recorder, she also began a stopwatch to time the speed of S's response. In addition to speed of response, Ss were observed for type of intervention. Ss could have opened the door dividing rooms A and B; S could have left room B to find someone else to help; or most simply, S could have called out to see if E needed help.

After the emergency ended, Ss were given a post-experimental questionnaire to complete. In it, Ss were asked to rate: the two rooms (A and B), the E, and the experiment itself on a semantic differential; their attitudinal similarity to E on a Likert-type scale; and to describe their reactions to the emergency in a series of open-ended questions (Appendix D).

All Ss were then told the true nature of the experiment. Great care was taken to relieve any anxiety experienced by those Ss who did not intervene in the emergency by modifying the debriefing to fit individual needs. Ss were then given their experimental credit and asked not to discuss the experiment with anyone. All Ss were also thanked for their participation.

## CHAPTER III

### RESULTS

#### Check on Manipulation

In the post-experimental interview, subjects were asked to describe what they thought had taken place next door. All subjects thought that the experimenter had fallen and hurt her foot. Less than 10 percent of the subjects reported any suspicion that the emergency was part of the experiment. Despite their suspicions, all of these subjects said they had to check to be sure. All of the subjects in the confederate condition reported that they believed the two confederates to be other subjects.

A check was also performed on the attitude similarity and environmental familiarity manipulations.

#### Attitude Similarity

Subjects were asked in the post-experimental questionnaire to rate the degree of attitudinal similarity between the victim and themselves on a Likert-type scale. The means were 6.99 for high similarity subjects and 5.52 for low similarity subjects. A t-test performed to compare the means proved to be significant [at the  $p < .001$  level ( $t = 10.86$ ,  $df = 1/126$ )] indicating the manipulation was successful. Subjects in the high similarity condition perceived

themselves to be more attitudinally similar to the victim than subjects in the low similarity condition.

#### Environmental Familiarity

Subjects were also asked to rate the emergency room on semantic differential scales. The mean for high familiarity subjects was 4.50 compared to 4.41 for low familiarity subjects. A t-test performed to compare the means proved to be non-significant ( $t = 0.49$ ,  $df = 1/126$ ), thus indicating that the environmental familiarity manipulation was not successful. Subjects in the high familiarity condition did not perceive the emergency room to be any more familiar than subjects in the low familiarity condition.

For purposes of data analysis, therefore, after analyzing manipulation results, a subsequent empirical mean was obtained for familiarity subjects. This mean (4.45) was then used to redivide subjects into high and low familiarity groups. Identical analyses were then performed on these new groupings. The rationale for this procedure was that helping behavior would be affected more by the subjects' own perception of familiarity with the emergency setting rather than by any type of manipulation performed by the experimenter. This was considered a distinct possibility during the planning stages of the experiment and was therefore done on an *apriori* basis.

#### Major Hypotheses

The major hypotheses of this experiment are:

Hypothesis 1. Bystander intervention will occur more frequently and more rapidly when a bystander perceives himself to be attitudinally similar rather than dissimilar to the victim.

Hypothesis 2. Bystander intervention will occur more frequently and more rapidly when a bystander is familiarized with the emergency setting prior to the emergency than when he is not.

In addition to investigating the effects of bystander/victim similarity and environmental familiarity, differences in helping behavior were observed for sex of bystander and for the alone bystander as compared to one in the presence of two non-reacting confederates (Darley and Latané, 1968).

The major hypotheses are addressed via four dependent measures. These are:

1. First Help Latency. This score was determined by measuring, in seconds, how long each subject took to respond to the victim. Subjects' time was recorded as soon as he either came into the emergency room or offered verbal assistance to the victim.
2. Mode of Helping Behavior. Subjects were divided into two groups; those who offered verbal assistance to the victim (Verbal Only Help), and those who went directly into the emergency room (Behavioral Only Help). This was done to determine if any of the independent variables affect the type of help offered the victim.
3. Differential Mode Latency. This measure is similar to First Help Latency in that subjects were clocked, in seconds, for response time. Now, however, separate latencies were determined for both Verbal Only Help and Behavioral Only Help.

4. Satisfaction with Response. In the post-experimental interview, subjects were asked to rate how satisfied they were with their response, regardless of what it was.

A total of 105 subjects (of the original 128) helped the victim in some way. It was therefore decided to analyze the data twice. First, all 128 subjects were included in the analysis regardless of whether they helped or not. Since the tape recorded emergency ran for 125 seconds, all subjects who chose not to help were assigned a latency score of 125 seconds. Similar analyses were then performed excluding those 23 subjects who did not help. This was done to determine if the independent variables, in addition to affecting if a bystander helped or not, could also account for differences in latency and mode of helping for those subjects who did help.

#### Data Analysis for All Subjects

A general overview of bystander intervention appears in Table 1. It is apparent that the degree of helping behavior exhibited by subjects in the present study is relatively high. Comparing these results to those obtained by Darley and Latané (1968), we find that 97 percent of our alone bystanders offered aid to the victim in less than 30 seconds, whereas only 70 percent did so in the original design. Similarly, 65 percent of our confederate bystanders helped the victim compared to only 7 percent tested by Darley and Latané.

The greatest amount of helping occurred in the high familiarity alone, and the high similarity alone conditions (100 percent) followed closely by the low familiarity alone and low similarity alone subjects (94 percent). The least amount of help was exhibited by the high

TABLE 1

PERCENTAGE AND LATENCY OF HELP EXHIBITED BY BYSTANDERS  
ACCORDING TO GROUP (MANIPULATION)

Group	Number	Percent Helping	Latency (Seconds)
All Alone Subjects	64	97%	22.99
All Confederate Subjects	64	65%	36.89
All High Familiarity Alone	32	100%	22.46
All High Familiarity Confederate	32	69	39.04
All High Similarity Alone	32	100%	22.55
All High Similarity Confederate	32	56%	34.83
All Low Familiarity Alone	32	94%	23.56
All Low Familiarity Confederate	32	62%	34.53
All Low Similarity Alone	32	94%	23.46
All Low Similarity Confederate	32	75%	38.43

similarity confederate bystanders. But here, too, the total intervention, 56 percent, far exceeded any comparable Darley and Latané group. The present results are more compatible with those obtained in the Clark and Word (1972) experiment where helping behavior was observed 100 percent of the time. While these percentages give a brief overview of the results, more can be said concerning the nature of these differences.

#### First Help Latency

Table 2 reports the results of the four-way ANOVA based on the latency scores, in seconds, of bystander intervention, regardless of mode.

There were no main effects observed for familiarity, similarity or sex of bystander. Whether the bystander was alone or in the presence of two non-reacting confederates, however, significantly affected their speed in rendering aid ( $F = 44.48$ ,  $p < .001$ ,  $df = 1/112$ ). The mean latency for subjects in the alone condition was 26.18 seconds compared to 67.18 seconds for confederate bystanders.

The Attitude Similarity X Number interaction approached significance ( $p < .10$ ,  $df = 1/112$ ) and was the only such interaction to do so. Figure 1 presents this data graphically.

It appears that although the alone bystander responds more rapidly than the confederate bystander under both high and low similarity conditions, it is the high similarity alone subject who responds fastest (22.55 seconds). Under confederate conditions, however, it is the low similarity bystander who aids the victim in the least amount of time (60.07 seconds). It is important to note,

TABLE 2

ANALYSIS OF VARIANCE OF FIRST HELP LATENCY (IN SECONDS) AS  
A FUNCTION OF FAMILIARITY, ATTITUDE SIMILARITY,  
NUMBER (ALONE OR CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Familiarity (F)	1	799.507	-
Similarity (S)	1	386.074	-
Number (N)	1	53787.750	44.48***
Sex (X)	1	11.222	-
FS	1	336.374	-
FN	1	190.961	-
SN	1	3686.207	3.05 <sup>+</sup>
FX	1	320.364	-
SX	1	584.392	-
NX	1	69.840	-
FSN	1	69.427	-
FSX	1	344.195	-
FNX	1	104.127	-
SNX	1	843.034	-
FSNX	1	1167.015	-
Error (Subjects within Groups)	112	135426.100	-

<sup>+</sup>p < .10

\*\*\*p < .001

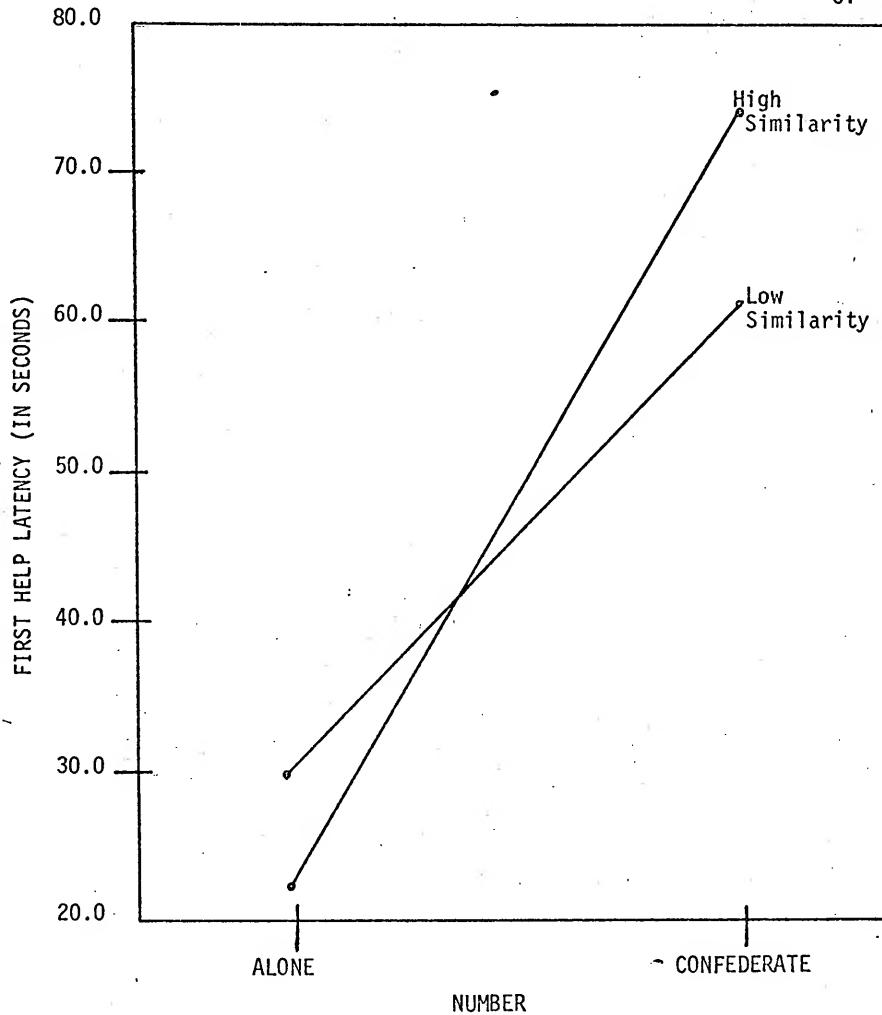


Figure 1. The Effect of First Help Latency in Seconds as a Function of Attitude Similarity and Number (All Subjects).

however, that this is merely a trend since there is no significant difference between the high and low similarity latencies.

#### Mode of Helping Behavior

Tables 3 and 4 report the results of the four-way ANOVA based on the mode of helping behavior as a function of familiarity, similarity, sex, and number of bystanders. It will be remembered that any one bystander, if he is to help, can do so by calling out to the victim (Verbal Only Help) or by going directly into the emergency room (Behavioral Only Help). It was assumed by this experimenter that walking into the emergency room was a qualitatively stronger index of helping behavior than was calling out.

Behavioral help.--Looking at Table 3 first, we see that once again, familiarity, similarity, and sex of bystander were not significant predictors, as main effects, of a bystander's decision to help the victim by going directly into the emergency room. The fact that a bystander was either alone or with confederates, however, was a significant predictor of behavioral help ( $F = 13.22$ ,  $p < .01$ ,  $df = 1/112$ ). The mean for alone bystanders as compared to confederates was 1.11 and 1.38, respectively, where 1 indicated behavioral help and 2 indicated no behavioral help. Based on these results one would expect the alone bystander more than the confederate bystander to aid his victim by proceeding directly into the emergency room. An interaction effect was observed between Attitude Similarity X Number. Here, as in first help latency, the interaction approached significance ( $p < .10$ ,  $df = 1/112$ ). Figure 2 represents this data graphically. When the bystander is alone, those subjects in the

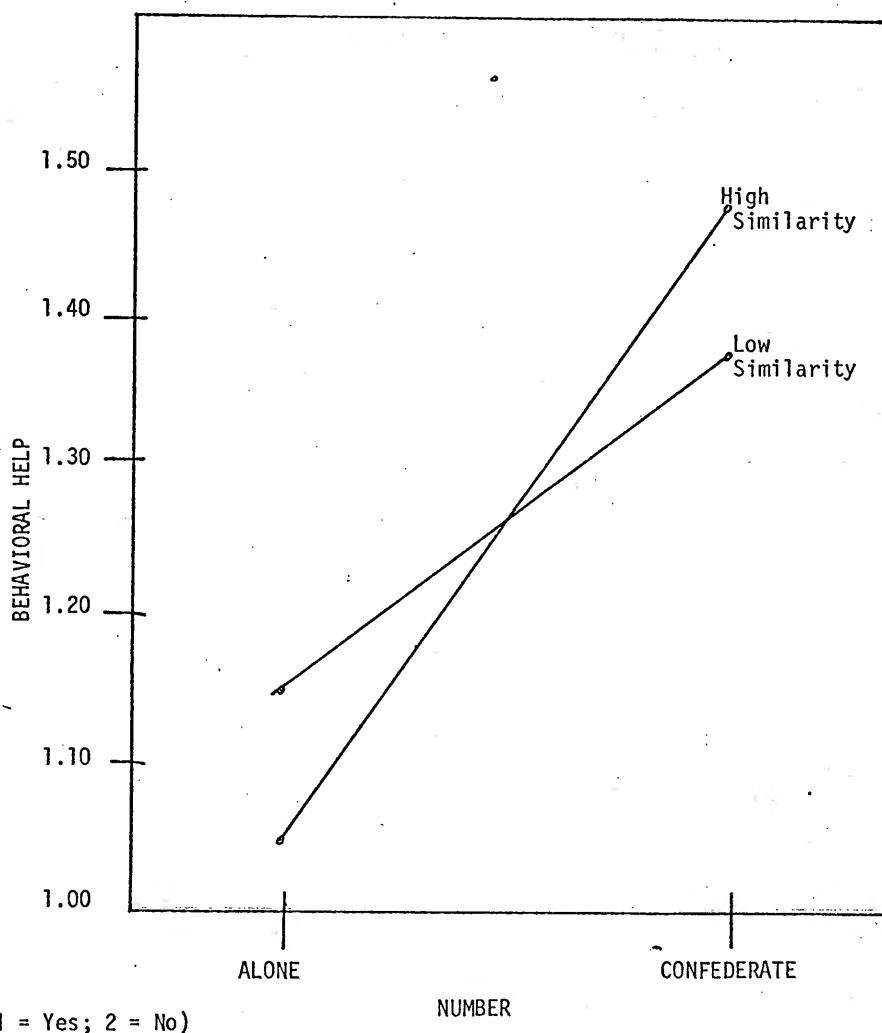
TABLE 3

ANALYSIS OF VARIANCE OF BEHAVIORAL ONLY HELP AS A FUNCTION OF  
FAMILIARITY, ATTITUDE SIMILARITY, NUMBER (ALONE OR  
CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Familiarity (F)	1	.007	-
Similarity (S)	1	.070	-
Number (N)	1	2.258	13.22***
Sex (X)	1	.195	-
FS	1	.383	-
FN	1	.007	-
SN	1	.633	3.71 <sup>+</sup>
FX	1	.070	-
SX	1	.383	-
NX	1	.070	-
FSN	1	.070	-
FSX	1	.070	-
FNX	1	.070	-
SNX	1	.070	-
FSNX	1	.007	-
Error (Subjects within Groups)	112	.171	-

<sup>+</sup>p < .10

\*\*\*p < .01



(1 = Yes; 2 = No)

Figure 2. The Effect of Behavioral Only Help as a Function of Attitude Similarity and Number (All Subjects).

high similarity condition are more likely to go into the emergency room than subjects in the low similarity groupings. However, when the bystander is in the presence of two non-reacting others, it is the low similarity bystander who is most likely to render assistance. Here, as in first help latency, the differences between the two are more of a trend than a significant difference.

Verbal help.--What about those subjects who chose to call out rather than proceeding into the emergency room? Table 4 examines the effects of all four independent variables on a bystander's likelihood to help verbally.

Two main effects are significant in determining verbal help. As in the two previous analyses, whether a bystander is alone or with others grossly affects his willingness to verbally help the victim ( $F = 47.04$ ,  $p < .001$ ,  $df = 1/112$ ). Here, too, it is the alone bystander ( $\bar{X} = 1.42$ ) who is more likely to give aid than his confederate counterpart ( $\bar{X} = 1.91$ ). Therefore, it is the alone bystander rather than one with confederates who is most likely to help both by calling out and by walking into the emergency room. The differences in  $F$ 's between the two modes of helping (13.22 for behavioral help and 47.04 for verbal help) leads to the hypothesis that the presence of non-reacting others is more of an obstacle to overcome if one is to call out than if one is to get up and leave them to aid the victim.

Attitude similarity was also a significant predictor of verbal help ( $F = 3.96$ ,  $p < .05$ ,  $df = 1/112$ ). It appears that the effect of high similarity is to increase the likelihood of calling out to the victim to see if she is all right ( $\bar{X} = 1.59$ ) over low similarity

TABLE 4

ANALYSIS OF VARIANCE OF VERBAL ONLY HELP AS A FUNCTION OF  
FAMILIARITY, ATTITUDE SIMILARITY, NUMBER (ALONE OR  
CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Familiarity (F)	1	0.070	-
Similarity (S)	1	0.633	3.96*
Number (N)	1	7.508	47.04***
Sex (X)	1	0.383	-
FS	1	0.070	-
FN	1	0.383	-
SN	1	0.633	3.96*
FX	1	0.008	-
SX	1	0.070	-
NX	1	0.008	-
FSN	1	0.070	-
FSX	1	0.383	-
FNX	1	0.008	-
SNX	1	0.383	-
FSNX	1	0.008	-
Error (Subjects within Groups)	112	0.159	

\*p &lt; .05

\*\*\*p &lt; .001

bystanders ( $\bar{X} = 1.73$ , where 1 equals giving verbal help and 2 equals no verbal help). This is not to be confused with behavioral help, since there was no similarity main effect observed there. In other words, while high attitude similarity between bystander and victim does not affect behavioral help, it does significantly increase the likelihood of verbal help.

Once again, the only interaction effect observed occurred between Attitude Similarity X Number of bystanders ( $F = 3.96$ ,  $p < .05$ ,  $df = 1/112$ ). Figure 3 graphically represents this data.

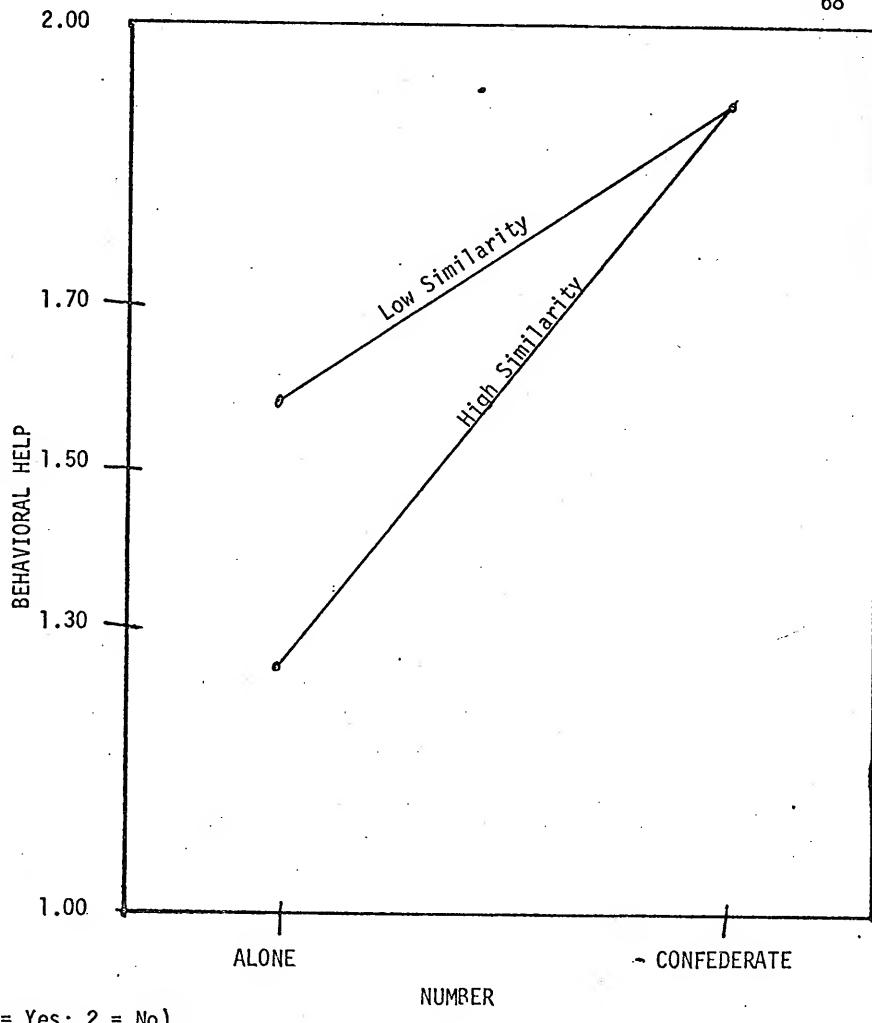
Here, as in the two previous analyses, it is the high similarity alone bystander who is more likely to render aid than one who is in the low similarity condition. There was no difference observed between high and low similarity under confederate conditions; neither were likely to offer aid.

#### Differential Mode Latency

Since it was apparent that at least two factors (similarity and number of bystanders, alone vs. confederates) did affect the mode of help chosen by the bystander, the next analyses determined if the latency of help was different across modes.

Behavioral help.--Table 5 reports the results of the four-way ANOVA based on the latency, in seconds, of bystander behavioral help.

As was anticipated, number of bystanders was a significant predictor of behavioral latency ( $F = 21.16$ ,  $p < .001$ ,  $df = 1/112$ ). As reported in Table 3, it was the alone bystander rather than the confederate one who was most likely to offer behavioral assistance.



(1 = Yes; 2 = No)

Figure 3. The Effect of Verbal Only Help as a Function of Attitude Similarity and Number (All Subjects).

TABLE 5

ANALYSIS OF VARIANCE OF BEHAVIORAL HELP LATENCY (IN SECONDS) AS A FUNCTION OF FAMILIARITY, ATTITUDE SIMILARITY, NUMBER (ALONE OR CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Familiarity (F)	1	140.07	-
Similarity (S)	1	219.19	-
Number (N)	1	30624.94	21.16***
Sex (X)	1	2800.33	-
FS	1	2403.83	-
FN	1	1195.13	-
SN	1	4667.09	3.23 <sup>+</sup>
FX	1	342.24	-
SX	1	3381.50	-
NX	1	2.98	-
FSN	1	1517.17	-
FSX	1	26.91	-
FNX	1	528.36	-
SNX	1	151.01	-
FSNX	1	1837.02	-
Error (Subjects within Groups)	112	1447.26	

<sup>+</sup>p < .10

\*\*\*p < .001

It follows then, as seen in Table 5, that the alone bystander should and does render such aid at a more rapid speed than his confederate counterpart. The average behavioral latency for the alone bystander was 40.14 seconds as compared to 71.08 seconds for the confederate.

As was also expected, the Attitude Similarity X Number of bystanders interaction approached significance ( $p < .10$ ,  $df = 1/112$ ) and was the only such interaction to do so. Figure 4 represents this data graphically.

Following the same pattern as behavioral help, the high similarity alone bystander renders the most rapid behavioral help (35.41 seconds) followed by the low similarity alone subject (44.87 seconds). Once again, however, we find it is the low similarity bystander who helps more quickly (63.73 seconds) than the high similarity subject (78.42 seconds) under confederate conditions. Although this is more of a trend than a significant difference, the pattern reoccurs often enough to warrant attention.

Verbal latency.--Table 6 reports the results of the four-way ANOVA for verbal help latency as a function of our four independent variables.

The two variables (similarity and number) which accounted for differences in amount of verbal help offered also account for the differences in verbal latency observed. Here again, not only was the single bystander more likely to offer verbal assistance (Table 4), he was also found to do it in less time ( $F = 46.37$ ,  $p < .001$ ,  $df = 1/112$ ). While the subject in the presence of non-reacting others took an average of 115.31 seconds to respond verbally, the alone

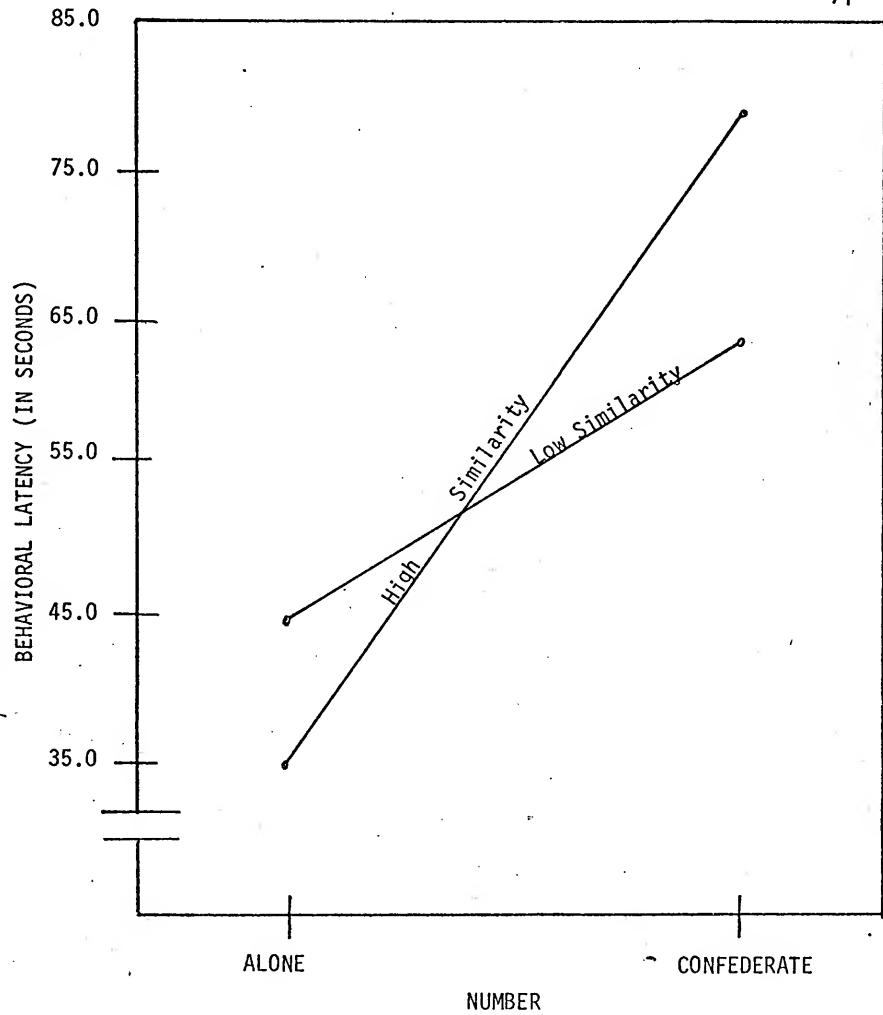


Figure 4. The Effect of Behavioral Help Latency as a Function of Attitude Similarity and Number (All Subjects).

TABLE 6

ANALYSIS OF VARIANCE OF VERBAL HELP LATENCY (IN SECONDS) AS A FUNCTION OF FAMILIARITY, ATTITUDE SIMILARITY, NUMBER (ALONE OR CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Familiarity (F)	1	472.016	-
Similarity (S)	1	6730.887	3.87 <sup>+</sup>
Number (N)	1	80751.940	46.38***
Sex (X)	1	4092.870	-
FS	1	813.059	-
FN	1	3546.625	-
SN	1	6672.750	3.83 <sup>+</sup>
FX	1	96.243	-
SX	1	687.278	-
NX	1	84.567	-
FSN	1	555.379	-
FSX	1	3891.819	-
FNX	1	70.757	-
SNX	1	3967.221	-
FSNX	1	441.857	-
Error (Subjects within Groups)	112	1741.195	

<sup>+</sup>p < .10

\*\*\*p < .001

bystander did so in 65.07 seconds. Along the same lines, it was observed in Table 4 that high similarity subjects were more likely than low similarity subjects to help the victim verbally. Now it is seen that he does so at a more rapid rate ( $F = 3.87$ ,  $p < .10$ ,  $df = 1/112$ ). High similarity bystanders took an average of 82.94 seconds to respond while low similarity subjects responded in 97.45 seconds.

The expected Attitude Similarity X Number of bystanders interaction was observed approaching significance ( $F = 3.83$ ,  $p < .10$ ,  $df = 1/112$ ). These data are represented graphically in Figure 5.

The same pattern observed in verbal help is once again seen in its latency. A high similarity alone bystander is more likely to help verbally and does so more rapidly than his low similarity alone counterpart. However, no differences were observed, either in degree or latency, under confederate conditions.

#### Summary

Before proceeding to the last dependent measure, satisfaction with response, it seems appropriate to summarize the findings thus far. Data from all 128 subjects were analyzed to determine which, if any, of the independent variables accounted for differences in helping behavior. Familiarity with the emergency setting and sex of bystander did not account for any significant proportion of the variance of any of the dependent measures. The two most potent independent variables were the number of bystanders present and the degree of attitude similarity between victim and bystander. It was apparent that whether one was measuring the first time a bystander

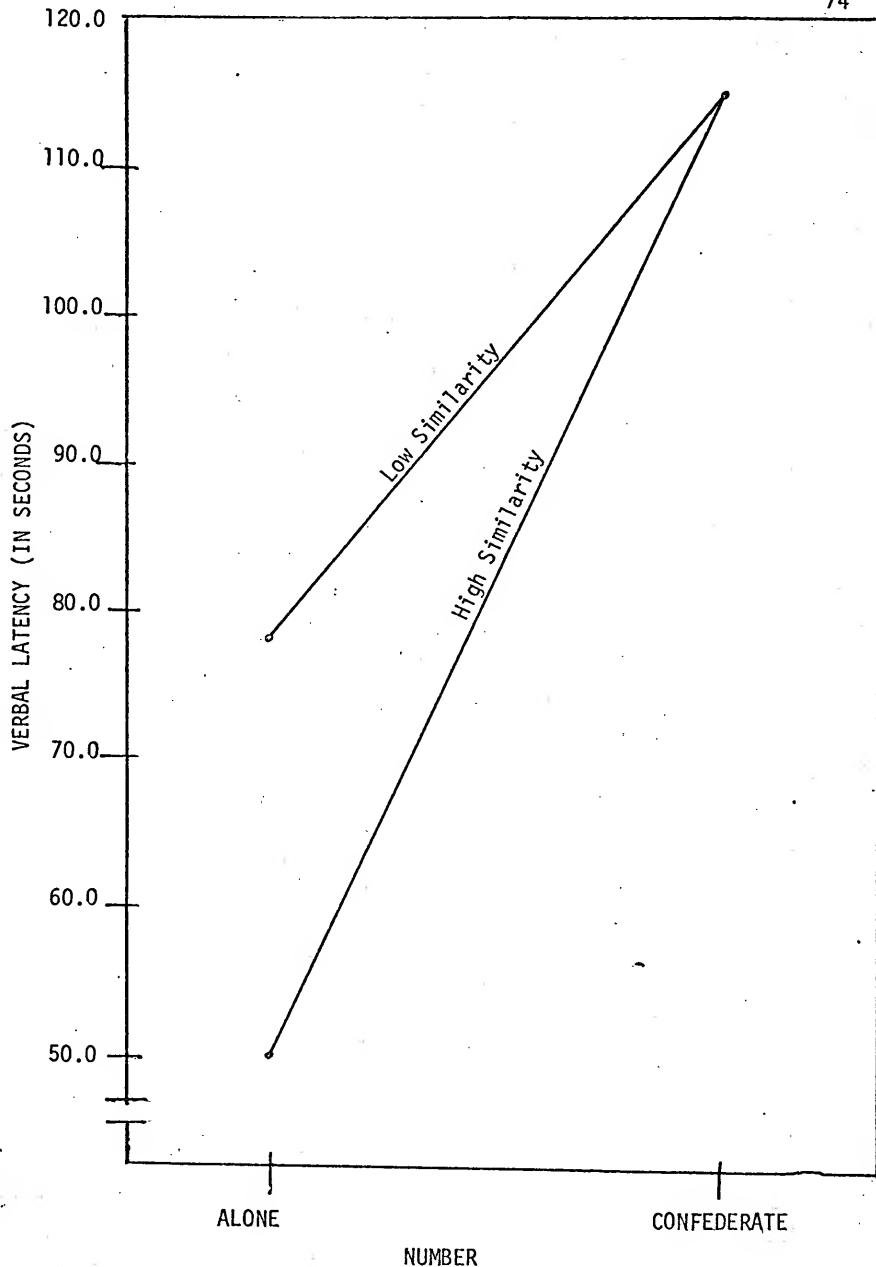


Figure 5. The Effect of Verbal Help Latency as a Function of Attitude Similarity and Number (All Subjects).

offered aid, or whether helping behavior was broken up into its verbal and behavioral components, it was the alone bystander who most often and most rapidly offered assistance. In addition, although attitude similarity did not effect behavioral helping behavior, it did significantly increase the likelihood and decrease the latency of verbal help offered the victim.

A consistent Attitude Similarity X Number of bystanders interaction occurred. For first help and behavioral latency, high similarity subjects helped more often and more rapidly when alone, whereas low similarity bystanders did the same when in the presence of non-reacting confederates. For verbal helping behavior, no differences were observed between high and low similarity subjects under the confederate condition, while under the alone condition, the high similarity bystander was once again the most helpful.

#### Satisfaction with Response

Table 7 reports the results of the four-way ANOVA for satisfaction with response as a function of the four independent variables.

Three interaction affects were observed, all of which were significant at at least the  $p < .05$  level. These were: Attitude Similarity X Number of bystanders ( $F = 6.79$ ,  $df = 1/112$ ), Familiarity X Sex ( $F = 4.11$ ,  $df = 1/112$ ), and Familiarity X Similarity X Sex ( $F = 4.11$ ,  $df = 1/112$ ). Figure 6 represents the Attitude Similarity X Number of bystanders interaction graphically.

Once again, we observe the same interaction between these two variables that occurred for first help latency and behavioral help. When the bystander is by himself, the high similarity rather than

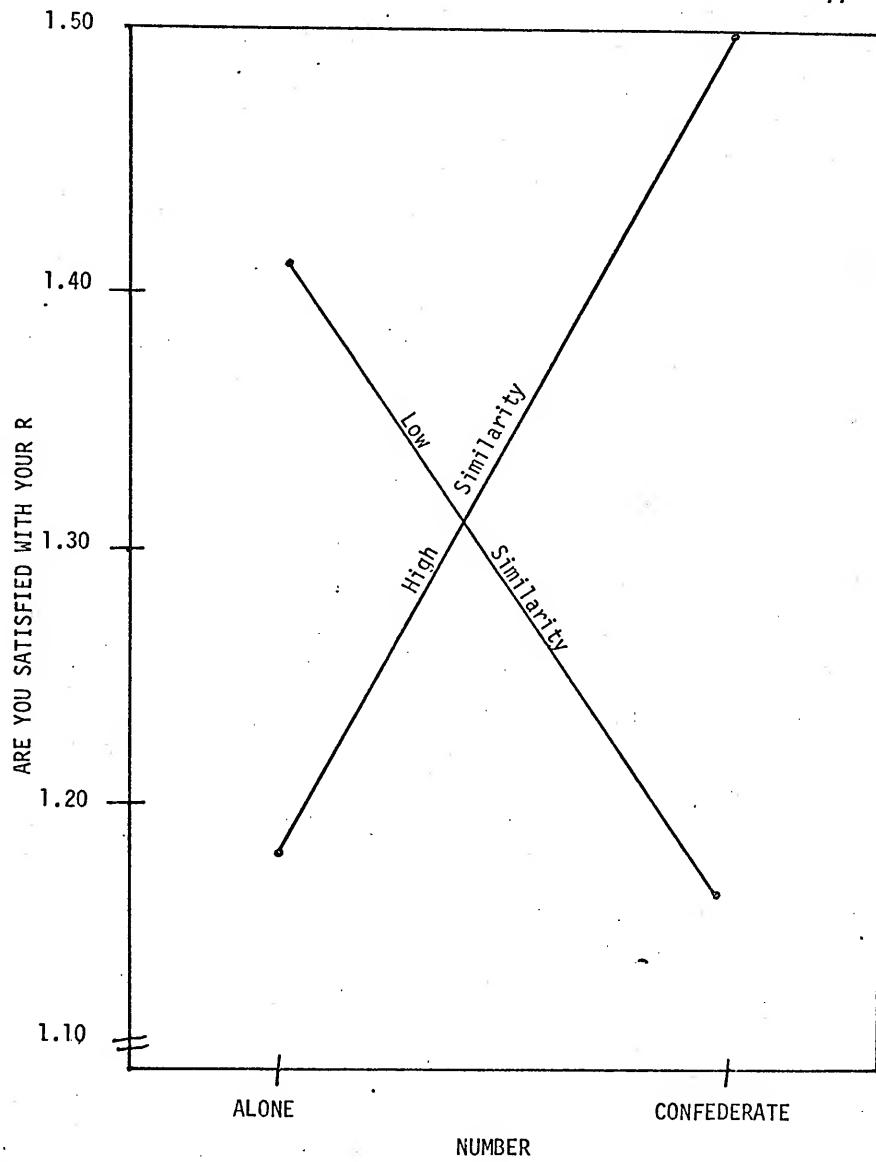
TABLE 7

ANALYSIS OF VARIANCE OF SATISFACTION WITH RESPONSE AS A FUNCTION  
OF FAMILIARITY, ATTITUDE SIMILARITY, NUMBER (ALONE OR  
CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Familiarity (F)	1	.031	-
Similarity (S)	1	.125	-
Number (N)	1	.031	-
Sex (X)	1	.000	-
FS	1	.031	-
FN	1	.000	-
SN	1	2.531	6.79**
FX	1	1.531	4.11*
SX	1	.000	-
NX	1	.281	-
FSN	1	.125	-
FSX	1	1.531	4.11*
FNX	1	1.125	-
SNX	1	.281	-
FSNX	1	.125	-
Error (Subjects within Groups)	112	.373	

\*p < .05

\*\*p < .01



(1 = Yes; 2 = No)

Figure 6. The Effect of Satisfaction with Response as a Function of Attitude Similarity and Number (All Subjects).

the low similarity subject is more satisfied with his response. When the bystander is in the presence of non-reacting others, however, it is the low attitude similarity bystander who is most pleased with his chosen course of action. As mentioned previously, possible explanations for this continued interaction will be discussed in the following section.

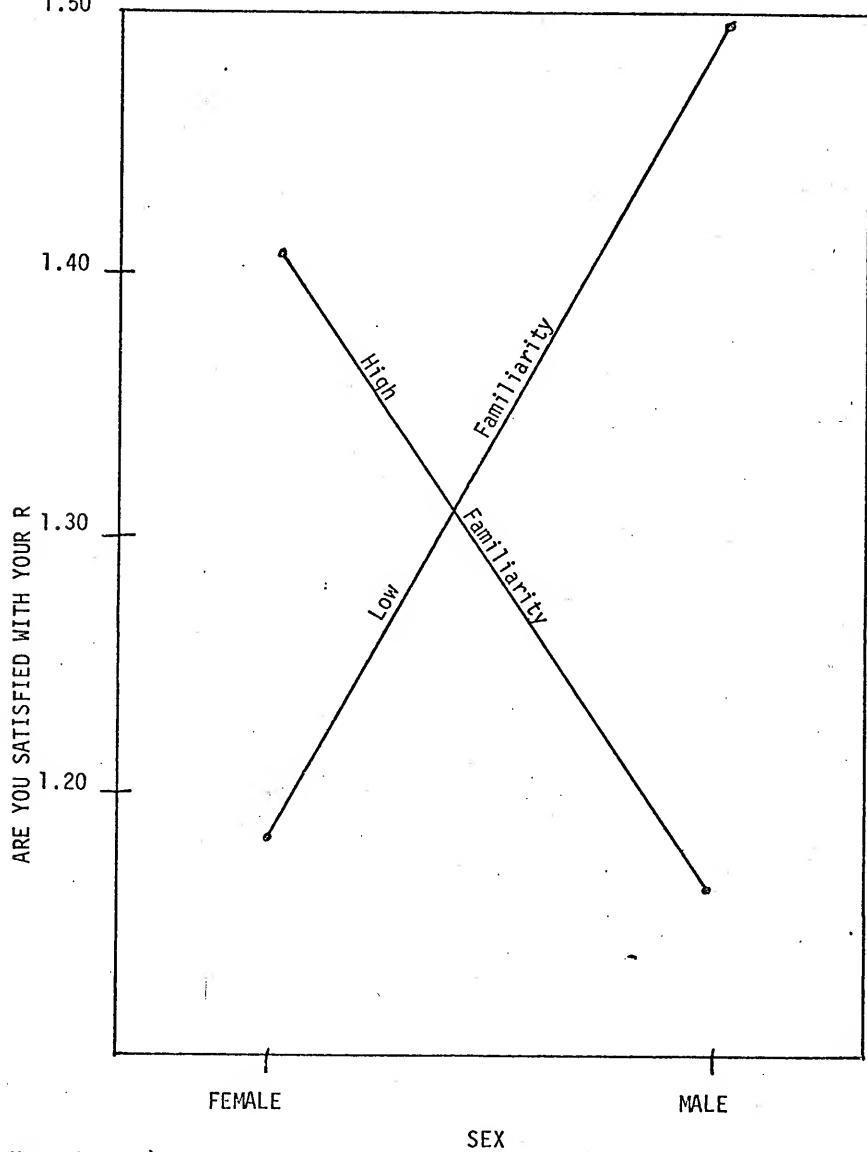
Figure 7 represents the Familiarity X Sex of bystander interaction data graphically.

It is worthwhile to note that satisfaction with response is the only dependent measure in which either environmental familiarity or sex of bystander showed up as a significant effect.

According to the data, under conditions of low familiarity, female bystanders rather than males were most satisfied with their response. The opposite was true under high familiarity conditions; that is, it was the male bystander who was most contented with his behavior.

Figure 8 represents the Familiarity X Attitude Similarity X Sex interaction data graphically.

Of all the interactions observed on the data, this is the only three-way interaction which was significant. It is also a most unusual one. According to the data, high similarity male and female subjects showed no difference in their satisfaction with their response, although low familiarity bystanders were slightly less satisfied (1.31 vs. 1.36, respectively). There was no significant difference between these two scores. Low similarity, low familiarity females and low similarity, high familiarity males were the most satisfied ( $\bar{X} = 1.06$  for both),



(1 = Yes; 2 = No)

Figure 7. The Effect of Satisfaction with Response as a Function of Familiarity and Sex of Subject (All Subjects).

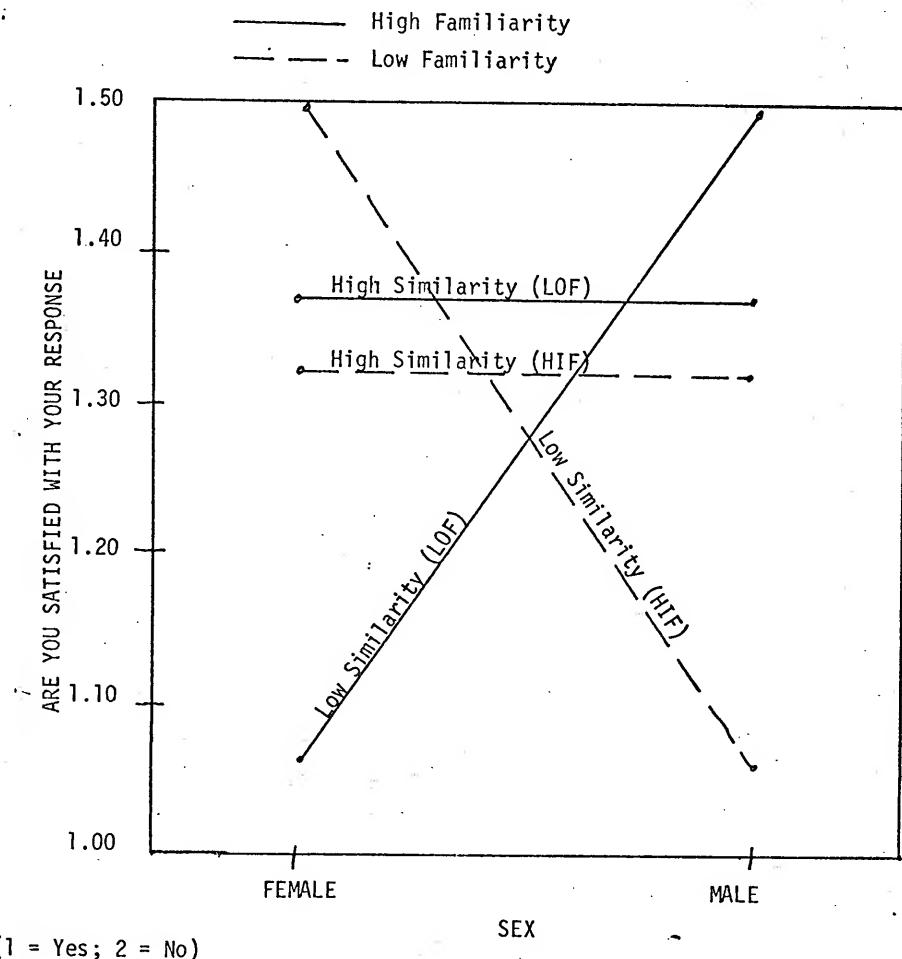


Figure 8. The Effect of Satisfaction with Response as a Function of Familiarity, Attitude Similarity, and Sex of Subject (All Subjects).

while low similarity, low familiarity males and low similarity, high familiarity females were the most dissatisfied ( $\bar{X} = 1.50$  for both).

#### Data Analysis for Helping Subjects

As mentioned in the beginning of this section, it was decided to analyze the data in a second fashion. Any subject who did not respond to the victim within the 125 second time limit was removed from the analysis. The question was then asked; disregarding those subjects who did not help, could our variables account for differences in helping behavior latencies?

Because of statistical difficulties arising from the now unequal group sizes, it was decided:

1. To exclude familiarity from these analyses since the familiarity manipulation was unsuccessful in distinguishing between groups.
2. To limit the analyses to: first help latency, mode of helping behavior (verbal or behavioral), and satisfaction with response.

A series of three-way ANOVAs were performed to answer the above questions.

#### Population

From the original population of 128 subjects, 23 were dropped because they chose not to help the victim in any way. The breakdown of these 23 non-helping subjects was; 12 female and 11 male subjects, 14 high similarity and 9 low similarity subjects, 2 alone and 21 confederate subjects. This left a total of 105 subjects in the new subject population.

#### First Help Latency

Table 8 reports the results of the three-way ANOVA based on the latency scores, in seconds, of bystander intervention, regardless of mode.

TABLE 8

ANALYSIS OF VARIANCE OF FIRST HELP LATENCY FOR HELPING SUBJECTS  
(IN SECONDS) AS A FUNCTION OF ATTITUDE SIMILARITY, NUMBER  
(ALONE OR CONFEDERATE), AND SEX OF BYSTANDER

Source	df	MS	F
Sex (X)	1	17.781	-
Similarity (S)	1	7.775	-
Number (N)	1	389.110	40.29***
XS	1	12.408	-
XN	1	8.316	-
SN	1	2.240	-
XSN	1	23.233	-
Error (Subjects within Groups)	98	9.659	

\*\*\*p < .001

There were no main effects observed for attitude similarity or sex of subject. Whether a bystander was alone or in the presence of two non-reacting confederates, however, significantly affected their speed in rendering aid ( $F = 40.29$ ,  $p < .001$ ,  $df = 1/98$ ). The mean latency for subjects in the alone condition was 22.99 seconds compared to 36.89 seconds for confederate bystanders. This effect was also observed in both two-way ANOVA's. It appears, then, even excluding the 21 subjects who were in the confederate condition and did not help, that number of bystanders significantly affects latency of helping behavior.

#### Mode of Helping Behavior

Tables 9 and 10 report the results of the three-way ANOVA's based on the mode of helping (either behaviorally or verbally), as a function of attitude similarity, number of bystanders, and sex of bystander.

Behavioral help.--Looking at Table 9 first, we see that, as opposed to the all subject analysis where number significantly affected behavioral help, none of the three variables alone affected whether a bystander aided the victim by going directly into the emergency room.

The Attitude Similarity X Sex interaction approached significance ( $p < .10$ ,  $df = 1/98$ ) in the three-way ANOVA, and reached significance in the Sex X Similarity two-way ANOVA ( $F = 5.09$ ,  $p < .05$ ,  $df = 1/103$ ). It was the only such interaction to do so for this measure. Figure 9 represents these data graphically.

According to the data, female bystanders rendered behavioral help

TABLE 9

ANALYSIS OF VARIANCE OF BEHAVIORAL ONLY HELP FOR HELPING SUBJECTS  
AS A FUNCTION OF ATTITUDE SIMILARITY, NUMBER (ALONE OR  
CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Sex (X)	1	.015	-
Similarity (S)	1	.003	-
Number (N)	1	.000	-
XS	1	.019	3.44 <sup>+</sup>
XN	1	.005	-
SN	1	.000	-
XSN	1	.008	-
Error (Subjects within Groups)	98	.006	
<u>2 Way</u>			
Sex (X)	1	.005	-
Similarity (S)	1	.001	-
XS	1	.013	5.09*
Error (Subjects within Groups)	103	.003	

<sup>+</sup>p < .10

\*p < .05

TABLE 10

ANALYSIS OF VARIANCE OF VERBAL ONLY HELP FOR HELPING SUBJECTS AS A FUNCTION OF ATTITUDE SIMILARITY, NUMBER (ALONE OR CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Sex (X)	1	.044	-
Similarity (S)	1	.039	-
Number (N)	1	.417	27.86***
XS	1	.002	-
XN	1	.004	-
SN	1	.025	-
XSN	1	.036	-
Error (Subjects within Groups)	98	.015	
<u>2 Way</u>			
Sex (X)	1	.013	-
Similarity (S)	1	.043	4.84*
XS	1	.006	-
Error (Subjects within Groups)	103		

\*p < .05

\*\*\*p < .001

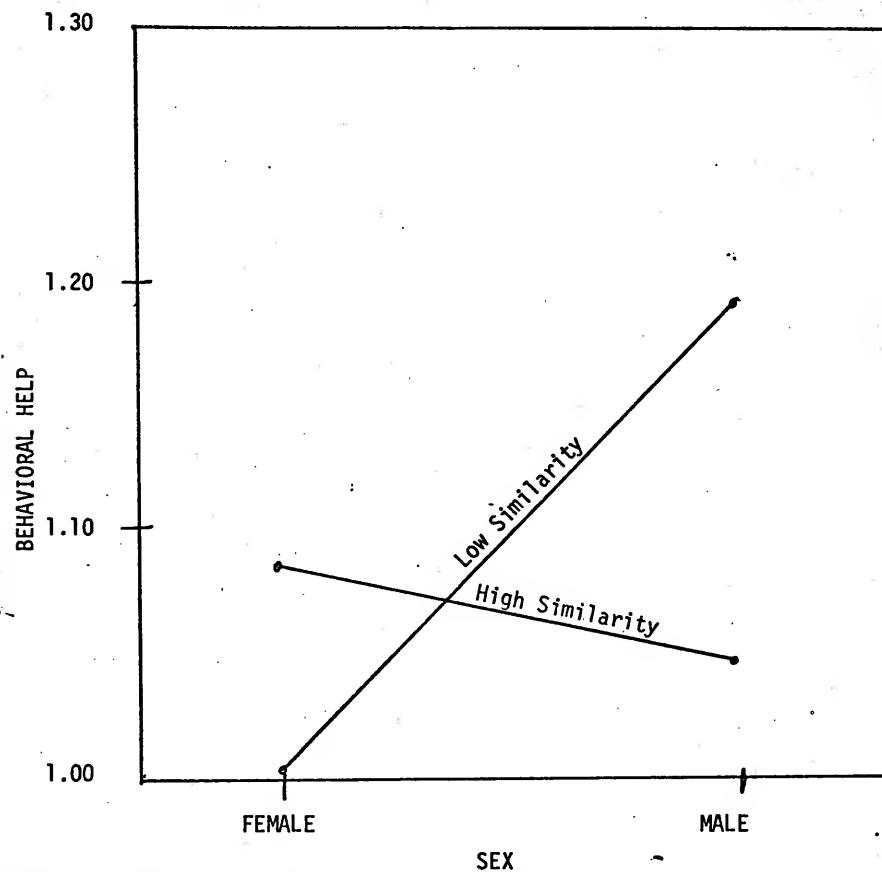


Figure 9. The Effect of Behavioral Only Help as a Function of Attitude Similarity and Sex of Subject (Helping Subjects).

under conditions of low attitude similarity ( $\bar{X} = 1.00$ ) but did not always do so under high similarity conditions. Males, on the other hand, although never helping as much as their female counterparts, offered the most assistance under high similarity manipulations ( $\bar{X} = 1.04$ ), helping the least when they were dissimilar to the victim ( $\bar{X} = 1.18$ ). The difference between these means, however, was not significant.

Verbal help.--It will be remembered, that in the all subject analysis, both number and similarity significantly affected a bystander's willingness to render aid. That is, the alone bystander and the high similarity bystander were both more likely to help by calling out and did so faster than their confederate or low similarity counterparts, respectively. As indicated in Table 10, it is the same two variables, number of bystanders and attitude similarity, which again account for differences in verbal help.

Here too, it is the alone bystander who is more likely to render verbal assistance than the subject in the presence of non-reacting others ( $F = 27.86$ ,  $p < .001$ ,  $df = 1/98$ ). On a scale where 1 = verbal help, and 2 = no verbal help, the mean for alone bystanders was 1.40 compared to 1.86 for the multiple bystander.

The effect of attitude similarity on verbal help is also consistent with the all subject analysis. That is, high similarity subjects more than low similarity subjects chose to help the victim by calling out ( $\bar{X} = 1.48$  and  $1.69$ , respectively). This difference was significant at the  $p = .05$  level ( $F = 4.84$ ,  $df = 1/103$ ) in the

Sex X Similarity two-way ANOVA. The effect was not apparent in the three-way ANOVA because the direction of help was the same for both similarity and number.

#### Satisfaction with Response

Table 11 reports the results of the three-way ANOVA for satisfaction with response as a function of the three independent variables.

Here, as in the all subject analysis, while there were no main effects, there was a significant Attitude Similarity X Number of bystanders interaction ( $F = 7.17$ ,  $p < .01$ ,  $df = 1/98$ ) accounting for bystander satisfaction with his response, whatever it may have been. Figure 10 represents these data graphically.

The interaction for helping subjects is identical to that of the all subject analysis. The subject most satisfied with his response is the low similarity confederate bystander ( $\bar{X} = 1.08$ ), followed next by the high similarity alone subject ( $\bar{X} = 1.19$ ). The bystander least satisfied with his behavior was in the high similarity confederate condition ( $\bar{X} = 1.56$ ) with the low similarity alone subject falling in between the other three ( $\bar{X} = 1.40$ ).

#### Perceived All Subject and Helping Subject Data Analysis

As mentioned previously, the original environmental familiarity manipulation was unsuccessful in instilling differential perceptions as to familiarity with the emergency room in our subjects. Therefore, identical analyses were performed using the original similarity and number groupings, but regrouping subjects into high and low familiarity based on the empirical familiarity ( $\bar{X} = 4.45$ ) obtained from the subjects' own ratings.

TABLE 11

ANALYSIS OF VARIANCE OF SATISFACTION WITH RESPONSE FOR HELPING SUBJECTS AS A FUNCTION OF ATTITUDE SIMILARITY, NUMBER (ALONE OR CONFEDERATE) AND SEX OF BYSTANDER

Source	df	MS	F
Sex (X)	1	.001	-
Similarity (S)	1	.032	-
Number (N)	1	.001	-
XS	1	.002	-
XN	1	.005	-
SN	1	.231	7.17***
XSN	1	.020	-
Error (Subjects within Groups)	98	.032	

\*\*\*p < .01

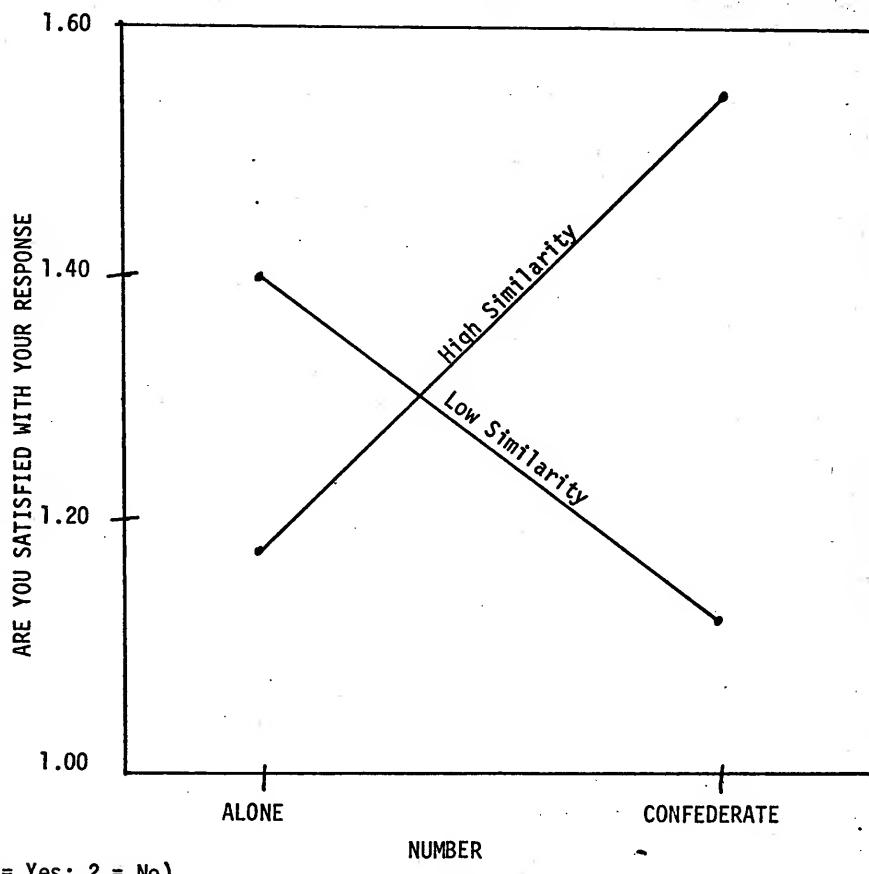


Figure 10. The Effect of Satisfaction with Response as a Function of Attitude Similarity and Number (Helping Subjects).

A series of three-way ANOVA's were performed to assess the possible familiarity effects on first help latency, mode of helping, and differential mode latency. Once again, the same attitude similarity and number effects were observed. Perceived familiarity was not a significant predictor of any of the helping measures. Because of the extreme similarity between these and the original manipulation results, none of the perceived tables will be presented.

#### Summary

Before proceeding to the results of the secondary hypotheses, a summary of the helping behavior results is warranted.

A series of ANOVA's were performed on both manipulation and perceived data accumulated on all subjects who participated in the present experiment ( $N = 128$ ) and on those subjects from the original population who actually helped the victim ( $N = 105$ ). The analyses were performed to answer four basic questions:

1. Regardless of how a subject helped the victim, how long did it take him? (First Help Latency.)
2. Did any of our variables affect the type of help offered the victim? (Mode of Helping Behavior.)
3. If the answer to question 2 is "Yes," did any of our variables affect the speed of the various types of help offered the victim? (Differential Mode Latency.)
4. Regardless of whether a subject helped the victim or not, and regardless of his speed of helping if he did help, did any of our variables affect a bystander's satisfaction with his response? (Satisfaction with Response.)

The data indicate that while environmental familiarity and sex of bystander do not affect bystander intervention, attitude similarity, and whether a bystander is alone or in the presence of others do. Under all three sets of analyses, it was the single bystander who was most likely to aid the victim in the shortest amount of time. This was true for both behavioral and verbal help as well as first help latency. The only measure which did not show a main effect due to number of bystanders was satisfaction with response, a non-helping behavioral index. Attitude similarity showed up as a main effect for verbal help. The data indicate that while attitude similarity does not affect the behavioral forms of helping, high attitude similarity between a bystander and his victim increases the likelihood while decreasing the latency that the former will help the latter verbally.

An increasing Attitude Similarity X Number interaction appeared under the all subject analyses for first help latency, mode of helping and differential mode latency (behavioral or verbal) and under all sets of analyses for satisfaction with response. According to the data, high similarity subjects were most efficient when they were alone. However, when the bystander was placed with two non-reacting confederates, it was the low similarity subject who was the most likely to intervene or be happy with his/her response.

#### Secondary Hypotheses

In addition to the two major hypotheses, four secondary hypotheses were tested. These secondary hypotheses were formulated based on Thibaut and Kelley's theory of interaction outcomes as related to bystander intervention.

### Secondary Hypothesis 1

Bystander intervention is negatively correlated with bystander hometown size. It will be remembered that according to Milgram (1970), individuals from large metropolitan areas are accustomed to having power controlled by anonymous institutions with whom interaction is very frustrating and hence costly. Therefore, it is possible that these city dwellers view themselves as powerless in reference to attaining presently unattainable goals. This in turn would cause them to stress the cost aspect of getting involved. Small town dwellers, on the other hand, do not have this problem of "overloading" (Milgram, 1970, p. 153), and as such, feel more personally responsible for their actions. Because interaction in such an environment is more successful, such individuals would tend to stress the rewards rather than the costs of relationships. Since past experiences based on geographic location can effect an individual's perception of present outcomes (Milgram, 1970), one would expect a city dweller to be less prone to help a person in trouble.

A Pearson  $r$  correlation was performed to test for the relationship between hometown size and helping behavior. Table 12 presents these data.

Contrary to our expectations, a trend toward significance in the opposite direction occurred between hometown size and first help latency ( $r = -0.17$ ,  $p < .10$ ). This indicates that as the population of the bystander's hometown increased, first help latency decreased. In other words, bystanders from large cities, when they help, do so faster than small town bystanders. A check was done to see if large

TABLE 12

PEARSON  $r$  CORRELATION BETWEEN HOMETOWN SIZE AND BYSTANDER INTERVENTION

Helping Measures	Correlation
First Help Latency	-0.17 <sup>+</sup>
Mode of Intervention	
- Behavioral Help	-0.14
- Verbal Help	-0.15
Differential Mode Latency	
- Behavioral Latency	-0.06
- Verbal Latency	-0.11

<sup>+</sup> $p < .10$

city bystanders help less often than small town subjects. It was found that while 15 percent of the total subject population came from a town with a population of over one million, only 8 percent of the non-helping subjects were from this group. Therefore, it appears that metropolitan bystanders not only help faster, they also help more often than rural bystanders.

#### Secondary Hypothesis 2

Bystander intervention is not correlated with age of bystander, family income, parental educational background, number of brothers, number of sisters, or number of siblings in the bystander's family.

It will be remembered that according to Thibaut and Kelley (1959), "...CL is a standard by which a person evaluates the rewards and costs of a given relationship in terms of what he feels he 'deserves'" (p. 21). They state that CL is most affected by experienced and salient outcomes. That is, an individual who has always enjoyed superior relationships will have a high CL with which to compare the present relationship. The reverse is true for individuals with a history of inferior relationships. This author believes that the above mentioned variables should not affect an individual's perception of what he feels he deserves in the bystander/victim relationship.

Table 13 represents the Pearson r correlation performed to test for relationships between these variables and helping behavior.

Our hypothesis was partially supported. According to the

TABLE 13

PEARSON  $r$  CORRELATION BETWEEN BYSTANDER DEMOGRAPHIC VARIABLES AND BYSTANDER INTERVENTION

Demographic Variables	Helping Measures				
	First Help Latency	Mode of Intervention		Differential Mode Latency	
		Behavior Help	Verbal Help	Behavior Latency	Verbal Latency
Age	-0.13	-0.01	0.01	-0.13	-0.19
Family Income	-0.03	-0.01	-0.12	0.11	-0.25
Father's Educational Background	-0.08	-0.02	-0.19 <sup>+</sup>	0.09	-0.11
Mother's Educational Background	-0.14	-0.01	-0.11	0.02	-0.15
Number of Brothers	0.05	0.21*	-0.02	0.13	0.02
Number of Sisters	0.39***	0.04	0.08	0.31***	0.27
Number of Siblings	0.30***	0.18	-0.19	0.30***	0.57***

<sup>+</sup> $p < .10$  $*p < .05$  $***p < .01$

data, there were no correlations between any measure of helping behavior and age, family income, and mother's educational background. There was a tendency toward less verbal help as a bystander's father's level of education increased ( $r = -0.19$ ,  $p < .10$ ).

There were, in addition, a series of related and unexpected correlations between a bystander's family size and subsequent intervention. First, it was observed that as the number of brothers a bystander had increased, the likelihood of his helping the victim behaviorally also increased ( $r = 0.21$ ,  $p < .05$ ). This might be accounted for by the fact that children from larger families might be expected to do more for themselves and others since there are more of them than there are parents, were it not for the negative correlations observed between helping behavior and number of sisters, and number of siblings. For number of sisters, there were significant negative correlations found for first help latency ( $r = 0.39$ ,  $p < .01$ ) and behavioral latency ( $r = 0.31$ ,  $p < .01$ ). This was also true for number of siblings ( $r = 0.30$ ,  $p < .01$  and  $r = 0.30$ ,  $p < .01$ , respectively), as well as for verbal latency ( $r = 0.57$ ,  $p < .01$ ).

### Secondary Hypothesis 3

There is no relationship between bystander intervention and bystander social desirability. This hypothesis is based on the belief that social desirability is not systematically related to interaction outcomes.

Thibaut and Kelley chose as their measure of interaction

outcomes the rewards an individual receives and the costs he incurs in the interaction under study. The determinants of reward and cost include such exogenous determinants as abilities, similarity, propinquity, and complimentarity and such endogenous determinants as compatible and incompatible response tendencies. An individual who has a high need for others to like him might want to help but at the same time might fear it is the wrong thing to do. An individual with a low need for social approval would use a variety of different cues (ability, similarity, etc.) to determine his response. In either case, social desirability is not systematically related to interaction outcomes.

Table 14 represents the results of a Pearson r correlation performed on social desirability scores as obtained by the Crowne-Marlowe Social Desirability Scale and helping behavior.

As can be seen by the Table, our hypothesis was supported. There was no significant correlation between social desirability and any of the helping behavior measures.

#### Secondary Hypothesis 4

Bystander intervention is not affected by the sex of the bystander. In an experiment on sex, dependency, and helping, Gruder and Cook (1971) found no helping effects due to the sex of the potential helper. The results of their experiment imply that sex differences observed in previous research were probably due to the sex of the person receiving help and not to the sex of the person giving it. Since the victim in the present experiment was a female, we anticipate equal help from both male and female bystanders.

TABLE 14

PEARSON  $r$  CORRELATION BETWEEN SOCIAL DESIRABILITY SCORES  
AND BYSTANDER INTERVENTION

Helping Measures	Correlation
First Help Latency	0.02
Mode of Intervention	
- Behavioral Help	0.09
- Verbal Help	0.09
Differential Mode Latency	
- Behavioral Latency	-0.11
- Verbal Latency	-0.15

Strong support for this hypothesis comes from the fact that there was no sex effect observed in any of the ANOVA's performed on the helping measures. In addition, a Pearson r correlation was performed. Table 15 reports the results of this analysis.

As was expected, no significant correlations were observed between sex of bystander and helping behavior.

Although no formal hypothesis was stated, many researchers have found that individuals tend to like others who are similar to themselves (Newcomb, 1961; Byrne and Nelson, 1965). Subjects in the present experiment, in addition to rating the degree of attitude similarity between the victim and themselves, were also asked to rate how much they liked the victim. This author was curious as to the relationship between interpersonal attraction and helping behavior. Table 16 reports the results of a Pearson r correlation performed on these data.

As expected, there was a significant positive correlation between attitude similarity and interpersonal attraction ( $r = 0.62$ ,  $p < .01$ ), lending additional support to previous research in this area. However, contrary to expectations, interpersonal attraction tended to increase both first help latency ( $r = 0.17$ ,  $p < .10$ ) and behavioral help latency ( $r = 0.30$ ,  $p < .01$ ). That is, as interpersonal attraction between the bystander and the victim increased, so did the time a bystander took to aid his victim.

TABLE 15

PEARSON  $r$  CORRELATION BETWEEN SEX OF BYSTANDER  
AND BYSTANDER INTERVENTION

Helping Measures	Correlation
First Help Latency	-0.09
Mode of Intervention	
- Behavioral Help	0.05
- Verbal Help	0.01
Differential Mode Latency	
- Behavioral Latency	0.05
- Verbal Latency	-0.11

TABLE 16

PEARSON  $r$  CORRELATION BETWEEN BYSTANDER-VICTIM INTERPERSONAL  
ATTRACTION AND BYSTANDER INTERVENTION

Helping Measures	Correlation
First Help Latency	0.17 <sup>+</sup>
Mode of Intervention	
- Behavioral Help	-0.07
- Verbal Help	0.09
Differential Mode Latency	
- Behavioral Latency	0.30***
- Verbal Latency	0.15
Attitude Similarity to Victim	0.62***

<sup>+</sup>  
p < .10  
\*\*\*p < .01

## CHAPTER IV

### DISCUSSION AND CONCLUSION

#### The Hypotheses

Recall that the experiment was performed to determine the effects of attitude similarity and environmental familiarity on bystander intervention. It was predicted, based on the notion of reward/cost, that increased attitude similarity between victim and bystander, and increased bystander environmental familiarity would facilitate helping behavior. In addition, four secondary hypotheses were generated concerning the effects of bystander hometown size, bystander demographic characteristics, social desirability needs, and sex of bystander on subsequent intervention.

The experiment offered highly mixed support for the six hypotheses tested. On the one hand, at least partial support was found for four of the hypotheses. Attitude similarity was positively related to some measures of bystander intervention, as suggested by Hypothesis 1. Secondary Hypothesis 2 was partly supported in that there were no significant correlations between bystander intervention and over half of the demographic variables tested. And, Secondary Hypotheses 3 and 4 were supported in that there were no significant correlations observed between social desirability or sex of bystander and subsequent intervention.

On the other hand, two of the hypotheses were left unconfirmed by the data. Environmental familiarity was unrelated to any forms of helping behavior, contrary to Hypothesis 2. This was true despite efforts to empirically group bystanders according to their own perceptions of the emergency room. Secondary Hypothesis 1 was also unconfirmed in that, contrary to expectations, a positive correlation, approaching significance, was obtained between bystander hometown size and helping behavior.

It will be remembered that the study was designed to test four of these hypotheses within the framework of Thibaut and Kelley's theory of interaction outcomes (1959). Increased attitude similarity and environmental familiarity would facilitate helping by enhancing reward possibilities while reducing intervention costs. Relationship attractiveness, determined by CL would affect intervention due to differences in hometown size, as measured by population density, and bystander demographic characteristics.

Although some of the hypotheses were not supported by the present investigation, the data are generally consistent with Thibaut and Kelley's theory. Apparent inconsistencies can be traced to reasons such as faulty experimental manipulations. Such was the case with Hypothesis 2, where environmental familiarity was determined by an unrealistically short period of time. Because of such difficulties, the results of the experiment can best be evaluated within the framework of the theory as a whole.

#### Support for the Theory

Five findings are of particular relevance to the theory. First,

it was observed that high similarity subjects were more likely to aid the victim by calling out and did so more rapidly than low similarity subjects. This was true whether the bystander was alone or in the presence of two non-reacting confederates. These results lend partial support for Hypothesis 1. Attitude similarity alone, however, did not account for differences in either first help latency or behavioral help. Since first help latency scores were a combination of both verbal and behavioral help, one probably cancelled out the other. When combined with number of bystanders, attitude similarity shows a more significant bystander effect. It was observed that when a bystander was alone, it was the high similarity bystander who helped most often and most rapidly across all measures (first help latency, behavioral help and latency, and verbal help and latency). When the bystander was placed with two confederates, however, it was the low similarity bystander who tended to help more often and rapidly under the more physical measures (high similarity subjects helped more verbally regardless of the number of other bystanders present).

These apparently contradictory findings can best be explained within the context of Thibaut and Kelley's theory. It will be remembered that attitude similarity, acting as an exogenous determinant of rewards and costs, was predicted to increase helping behavior. Increased attitude similarity between victim and bystander would increase the possibility that the bystander would be rewarded for his efforts by the victim, and at the same time, would act to decrease the costs of helping by eliminating fears of embarrassment and anxiety in the bystander about doing the wrong thing for someone he liked.

(note: It was found that interpersonal attraction was enhanced by increased attitude similarity). This prediction was supported for all alone bystanders. Increased attitude similarity facilitated intervention across all measures. The theory was also supported for those subjects who chose to call out. Why then did high similarity fail to increase behavioral helping for confederate bystanders? The answer is two-fold.

First, the emergency incident occurred within the confines of a psychological experiment with the victim being none other than the experimenter herself. Each subject had two possible avenues for helping the victim. He could stay in his room and offer verbal assistance, or he could open up the door to the emergency room and physically render behavioral help. When a subject was alone and heard the victim's pleas, either response probably would not ruin the experiment since he was the only one participating in it. He could either call out to, or go to the experimenter and, after seeing everything was all right, could go back to his chair and proceed with the experiment. Similarly, when a bystander in the presence of others offered verbal assistance to the victim to see if she was all right, the experiment was not severely interrupted. However, for a bystander to help the victim behaviorally in the confederate condition, he would have to get up and leave the room and the other subjects; an act which might disrupt the entire experiment. The confederate subject would thus find himself in a sticky predicament. In the high similarity-confederate condition, the naive bystander is similar to and likes the victim very much. He wants to respond

in the most appropriate manner. By offering verbal assistance he helps the victim, and at the same time, does not risk destroying the experiment. If he goes into the emergency room, he can help the victim in one way but possibly hurt her by ruining her experiment. Past research has shown (Orne, 1962) that certain "demand characteristics" (p. 778) of psychological experiments affect a subject's behavior such that he will play the part of a "good subject" (p. 778). The most helpful course of action in the present experiment, therefore, and the one which is most rewarding and least costly is an offer of verbal assistance. This he does. The low similarity confederate bystander, on the other hand, feels less of an attraction for the victim and as such may not be as receptive to such "demand characteristics." If he helps the victim by going into the emergency room he may at the same time be ruining the experiment. But, because his thoughts may not be directed solely at helping the victim all around, he takes less time to ponder the consequences and acts more rapidly.

The second possibility concerns the relationship between the low similarity bystander and the two confederates. Thibaut and Kelley assert that interaction between two individuals will occur if the present relationship exceeds their  $CL_{alt}$ . In another experiment (Smith, *et al.*, 1972), it was found that a bystander will aid a victim in the presence of dissimilar other bystanders. Applying these results to the present experiment it is possible that the low attitude similarity manipulation cues the naive bystander that he is not only different from the victim but also from the confederates

who, like the victim, are college students. Although no measure was taken, the naive subject may have seen himself as being different from the other subjects making victim/self interaction the most appealing relative to his CL<sub>alt</sub>. Therefore, although the subject rated himself as dissimilar to the victim, he may have seen himself as more similar to the victim than to the other bystanders. This would, according to the theory, increase his probability of helping.

Because this author failed to take into account the possible affects of multiple bystanders on attitude similarity prior to the experimental design, these hypotheses were not considered. Either one, however, could account for the apparent discrepant results within our current theoretical framework. These explanations would also account for the results obtained under the measure Satisfaction with Response. The alone high similarity bystander, because he helped so often (100 percent) and so rapidly, was quite pleased with his behavior. The high similarity confederate bystander, however, was less pleased with his response possibly because of the bind he found himself in. Therefore, the apparent high satisfaction with response reported by low attitude similarity confederate bystanders is merely a reflection of the low satisfaction on the part of the high similarity confederate subjects. Support for this explanation comes from the subjects themselves. Approximately 25 percent of the high similarity confederate subjects, on their post-experimental questionnaires, reported dissatisfaction at having taken too long to respond. Some reported a fear of ruining the experiment. Others stated that they assumed the experimenter was all right when she failed to respond to

their calls of aid. Less than 6 percent of the low similarity confederate bystanders voiced such concerns.

The second finding of relevance to Thibaut and Kelley's theory concerns the effect of environmental familiarity on bystander intervention. It was predicted that increased environmental familiarity with the emergency setting on the part of the bystander would increase helping. The mechanism to accomplish this would be a reduction in cost of interaction facilitated by this prior knowledge of the emergency room. Unfortunately, this hypothesis was not supported by the present experiment. This author firmly believes, however, that this failure was due primarily to experimental manipulation rather than a weakness in the theory.

It will be remembered that subjects in the high familiarity condition spent approximately 15 minutes in the emergency room before proceeding next door. Subjects in the low familiarity condition briefly walked through the emergency room. This 15 minute time difference was intended to instill differential familiarity perceptions within the bystanders. Results of the t-test performed on subjects' familiarity ratings indicate that this was not the case. An empirical split was then performed using the means obtained by these ratings making new high and low familiarity groupings. These new ratings, however, were also grouped around this empirical mean indicating that these ratings will always remain tightly clustered regardless of how subjects are grouped.

A probable explanation for this phenomenon concerns both the subject population as well as the experimental setting. All subjects

in the present experiment were students in an introductory psychology course. Requirements at the University of Florida are such that a student must take introductory psychology before he may enroll in more advanced psychology courses. Because the introductory psychology course is oftentimes large, it meets in an auditorium not in the psychology building. Therefore, none of the subjects in the present experiment had spent any considerable length of time in the psychology building prior to the experiment.

All buildings, when approached for the first time, appear large and strange, especially to lower classmen. The psychology building is no exception. Indeed, the floor where the experiment took place contains a veritable maze of experimental rooms. It is, therefore, doubtful that a freshman or sophomore student would feel relatively familiar with such a complex in 15 minutes. An alternative would be to use a different familiarity manipulation. Subjects in the low familiarity condition could be brought to the experimental room via the back door, thereby having no exposure to the emergency room prior to the emergency. This approach would be similar to many of the early bystander studies. With the help of hindsight, it becomes apparent that a more realistic and feasible approach to this dilemma would be to move the experiment to a natural setting. The results of Granet (1970), an experimenter who did just that, leads this author to the conclusion that environmental familiarity increases helping by reducing interaction costs.

It will be remembered that Granet observed helping behavior

in both a New York City airport and subway station where he found a significant correlation between familiarity and emergency response. He interpreted these findings to indicate that a person who was more familiar with the environment was more aware of the way it worked. The helper would not be overloaded with stimuli as is one in a novel setting, and his fears of embarrassment or actual physical harm would have been moderated. Thus, familiarity facilitated helping by reducing or eliminating certain interaction costs.

The third result of relevance to the theory concerns the relationship between hometown size and bystander intervention. It was predicted that due to individual differences and CL, there should be a negative correlation between hometown size and bystander intervention. The hypothesis was based on theoretical foundations as well as empirical data. An individual's comparison level, according to Thibaut and Kelley, will be affected by and compared to all experience outcomes of past and present other relationships. Persons from large metropolitan areas by virtue of the town's size, view getting involved very costly due to contact with many institutional organizations (Milgram, 1970) and the vast variety of other individuals with which to choose for interaction. The opposite is true for small town dwellers. Empirical support for this notion comes from results of experiments by Latané and Darley (1969) and Clark and Word (1972). Whereas Clark and Word found 100 percent helping behavior in their study conducted in Tallahassee, a relatively small southern town, Latané and Darley

observed no more than 70 percent helping (40 percent in confederate conditions) in their identical New York City study.

The present hypothesis of a negative correlation between hometown size and bystander intervention, however, was not supported. For all but one of the helping indices, no significant correlation was observed between hometown size and subsequent intervention. For first help latency, there was a trend toward more rapid helping by bystanders from larger cities. An explanation for this may be found in the theory itself. An individual's CL, in addition to being affected by experienced outcomes, is also influenced by salient outcomes of the present situation. Thibaut and Kelley believe that a person's current frame of reference will influence the salience of certain outcomes. In the case of the present experiment, we find two students, both going to the same school, living in the same town, approximately the same age, both taking psychology courses. One is the victim, the other the bystander. Therefore, it is possible that a bystander who, ordinarily would not get involved were he back home in New York, finds the salience of outcomes available in the present relationship heightened by the above factors, and as such, might help. In addition, the fact that all of the subjects were living in a small town at the time the experiment was conducted might help explain why the positive correlation obtained only accounted for 3 percent of the total variance. Indeed, the total amount of help exhibited by subjects in the present experiment (97 percent alone subjects, 65 percent confederate subjects) more closely resembles the results of Clark and Word than those of Latané and Darley, tending additional support for the salient outcome hypothesis.

Referring to the results of their experiment, Clark and Word (1972) state, "...Even though no differences were noted in the behavior of subjects from cities with over 100,000 inhabitants...from the behavior of subjects who reported coming from cities with less than 25,000 inhabitants...this does not eliminate the possibility of population characteristics accounting for our atypical results. It could well be that the response evoked in an emergency in this environment would not be found in a larger nonsouthern urban area" (p. 396). On a simpler level, it is possible that people from metropolitan centers generally do everything faster!

The fourth set of findings related to the theory also pertains to an individual's CL, this time with reference to certain demographic variables and their relationship to bystander intervention. Secondary Hypothesis 2 predicted that; bystander intervention is not correlated with: age of bystander, bystander family income, educational background of parents, number of brothers, number of sisters, and number of siblings in the bystander's family.

According to the data, this hypothesis lends partial support to the theory. As predicted, no significant correlations were observed between three of the seven characteristics and helping behavior. These characteristics were, age of bystander, family income, and the educational background of the bystander's mother. There was only a slight tendency ( $p < .10$ ) toward increased verbal helping as the educational background of a bystander's father increased.

A more startling observation concerned the relationships between bystander intervention and number of brothers, number of sisters, and number of bystander siblings. During the past few years, a significant cultural revolution has occurred, commonly labeled the Women's Liberation Movement. Although the following is conjectural in nature, an interpretation of these results may best be approached as a reflection of these changing life styles.

First, it was found that as the number of bystander's brothers increased, the probability that the bystander offered behavioral help also increased. This may be due to early independence training in boys (members of such a family have learned to take care of themselves). Because the number of females in such a family is small ( $r = .02$ ) the sounds of a female victim in distress may trigger the notion that in the room next door lies a helpless female who is in need of as much help as possible. Hence, if this bystander chooses to help he would, naturally, render physical assistance.

Families containing females, however, have probably undergone significant cultural role changes in the past few years (Westervelt, 1972; Brine, 1972) due to the influence of women's lib. If this were true, then the last thing a bystander from such a family would do would be to play Sir Walter Raleigh and rush in to the rescue. Such is the case. As the number of sisters a bystander has increases, so does the latency of first help and behavioral help increase, indicating that the subject may be allowing the victim sufficient time to take care of herself. Only after it was evident that she could not, did they offer help. This was also true for number of

siblings where, in addition to first help and behavioral help, verbal help latency also increased as the size of the family grew. Since this was not true for all male families, one could conclude that the increase in intervention latencies for mixed sex families was due to its female members.

The last finding of relevance to the theory deals with the effect of social desirability on bystander intervention. According to Secondary Hypothesis 3, there should be no significant correlation between bystander intervention and social desirability since the latter is not systematically related to interaction outcomes.

Certain experimenters (Darley and Latané, 1968) have alluded to the fact that an individual with a high need for social approval would be more likely to help a victim in distress than would one without this need. Subjects in their experiment were administered the Crowne-Marlowe Social Desirability Scale which indicated that there was no relationship between these two variables. Because the population of the present experiment was different from Darley and Latané's New York City subjects, the Crowne-Marlowe was again administered. Once again, no relationship was observed between social desirability and bystander intervention. This author believes this is due to the fact that social desirability is not systematically related to interaction outcomes and provides additional support for this theory. The determinants of interaction outcomes (rewards and costs) include such exogenous determinants as similarity, ability, propinquity, and complementarity, and such endogenous determinants as compatible and incompatible response tendencies. An individual

who has a high need for social approval might want to help but at the same time fear it is the wrong thing to do. Therefore, he is torn between a possible compatible or incompatible response. An individual with a low need for social approval would use a variety of different cues (ability, similarity, etc.) to determine his response. In either case, interaction outcomes are not affected by social desirability needs.

Social desirability is not to be confused with the differences in performance exhibited by subjects in the high and low attitude similarity groups. A subject with high social desirability needs, if it were related to bystander intervention, would want the experimenter to be pleased with his behavior regardless of attitudinal similarity or dissimilarity, and would therefore help all the time. The data do not support this. Similarly, a subject with low social desirability needs, regardless of his group composition and similarity manipulation, would use cues other than "will the experimenter be pleased if I do this" to determine his course of action.

#### Additional Findings

In addition to the five findings specifically related to the theory, there are a number of additional findings relevant to the area of bystander intervention.

The first deals with the relationship of the sex of the bystander and his willingness to aid a victim. A number of researchers (Piliavin, Rodin, and Piliavin, 1969; Berkowitz, Klanderman, and Harris, 1964) report findings that males tend to assume more responsibility and take more initiative than females.

in giving help to dependent others. On the other hand, more recent work in this area (Gruder and Cook, 1971) report contrary data. In a study on sex, dependency, and helping, Gruder and Cook found no helping effects due to the sex of the potential helper. Additional support for this comes from the results of Darley and Latané (1968), where females were equally fast as males in rendering aid to a victim. Gruder and Cook concluded that sex differences observed in previous research were probably due to the sex of the person receiving help and not to the sex of the person giving it. This explanation is appropriate since the victims in both the Piliavin, et al. (1969) and Berkowitz, et al. (1964) experiments were male. Based on the findings of Gruder and Cook, and Darley and Latané, Secondary Hypothesis 4 was formulated to state that since the victim in the present experiment is a female, this experimenter does not anticipate a sex effect on bystander intervention. As the data indicate, this hypothesis was indeed supported.

These results, however, fail to shed any light as to why, in real life, bystanders are so reluctant to help a victim. More often than not, as was the case with Kitty Genovese, the individual needing help is a female. According to the results of this and previous experiments, female victims elicit more help from both male and female bystanders than do male victims. However, the results of the present investigation reveal that when more than one bystander is present, 35 percent of female victims go unaided.

The last finding of relevance is an outgrowth of data obtained on attitude similarity between victim and bystander. As reported

earlier, a significant positive correlation was observed between attitude similarity and interpersonal attraction between victim and bystander ( $p < .01$ ). These results lend additional support to previous research in the area of interpersonal attraction (Newcomb, 1961; Byrne and Nelson, 1965). However, contrary to expectations, as interpersonal attraction between the two increased, so did first help and behavioral help latency. That is, the more the bystander liked the victim, the longer he took to help him. This finding suggests that a victim is more likely to elicit help from those who dislike him most. Because this runs counter to common sense as well as previous research in this area, additional work is necessary to determine the replicability of this phenomenon.

#### Implications of the Theory and Findings

Attitude similarity has been shown to facilitate bystander intervention in emergency situations, especially for the alone bystander. In addition, although not supported in the present investigation, environmental familiarity has been shown to increase helping behavior outside the confines of the experimental laboratory (Granet, 1970). Both of these variables seem to operate by increasing the rewards available to the prospective helper through similarity and propinquity while reducing interaction costs by eliminating fear of embarrassment, anxiety, and guilt on the part of the bystander. Increased intervention by two friends has also been demonstrated (Latané and Darley, 1969) via cost reduction.

These findings have implications for future research in the area of bystander intervention.

It will be remembered that Milgram (1964) in writing about the Kitty Genovese murder stated, "...many facts of the case have not been made public such as the quality of the relationship between Miss Genovese and the community, the extent to which she was recognized that night and the number of persons who knew her" (p. 604). Milgram is, of course, referring to the dimension of similarity, the crux of this study. He goes on to say, "...in New York City it is not unusual to see a man sick with alcohol, lying in a doorway; he does not command the least bit of attention or interest from those who pass by. The trouble here, as in Kew Gardens, is that the individual does not perceive that his interests are identified with others or with the community at large" (p. 604).

It is with this notion of perception of interests with others and the community that the results of this study are pertinent. One need only drive through a typical urban and rural center to notice the profound differences in their architecture and life style. In large cities, where space is scarce, apartment buildings are constructed upwards containing no less than five and often fifty stories. Lobbies are small and designed more as an entranceway than a meeting place. Recreation rooms, pools and other facilities designed to facilitate interaction are scarce, if not nonexistent. Laundry rooms, when they are present, are locked away in the basement, where lighting and ventilation all but drive away the most avid washer. In short, such structures have neither the facilities nor the atmosphere conducive to prolonged interaction between residents.

Compare this to the typical suburban atmosphere. When apartment complexes are present, they are spread out over a number of acres. Buildings are low and open so that they are usually less than three stories high. Large recreation rooms, coupled with many planned activities, pools, and pleasant laundry rooms are the rule rather than the exception. The atmosphere provided is one for pleasant, congenial, and continued resident interaction. The layout is also planned such that each tenant is more than familiar with the entire complex. Those individuals who choose to live in private dwellings find the local community center the place to meet and form relationships with their neighbors.

Let us return now to the setting of the Genovese slaying. Kew Gardens, New York City, is a typical urban center. The apartment house where Miss Genovese lived was similar to the metropolitan type just described. Is it any wonder, then, that those individuals (we would not call them neighbors) who witnessed the incident failed to intervene? It is quite likely that these people, as Milgram suggested, did not know Miss Genovese well, did not feel similar to her, and moreover, did not feel that their own territory (complex) was being threatened, since such a feeling is almost impossible to achieve in such a setting. Perhaps, even in a city as large as New York, at least a small semblance of community could be achieved, and increased intervention through continued interaction elicited if apartment complexes were built with its residents in mind. Granted that space is limited, could not architects construct a floor midway through the building housing such recreation facilities as

would increase interaction as well as familiarity? The present experiment, as well as that of Clark and Word (1972) lends evidence that salient outcomes can increase helping behavior even among large city dwellers, when a "landsman effect" is achieved. Further evidence for this hypothesis comes from sociologists (Gans, 1959; Glass, 1959; Lee, 1968; Mann, 1965; McCleahan, 1929, 1945; Riemer, 1951; and Sweetzer, 1941, 1942) who found that increased interpersonal attraction and interaction can be achieved through strong community ties.

It is unrealistic to assume that an atmosphere of community can be achieved throughout an entire city the size of New York, but if such senseless slayings as that of Kitty Genovese can be eliminated within the confines of one's own neighborhood, the effort would be well worthwhile. More research is definitely warranted in this area with special emphasis on the role of attitude similarity, interpersonal attraction and environmental familiarity outside of the psychology laboratory.

The sex effect in family size observed in the present investigation also has implications for future research. Since the advent of the Women's Liberation Movement, one becomes aware of the change in sex role and child rearing practices with relation to helping damsels in distress (Westervelt, 1972; Brine, 1972). An interesting avenue for future research would be to study the degree and latency of helping behavior exhibited by male and female subjects to a female victim when the bystanders come from either traditional or contemporary all male, all female, or mixed sex families.

Concluding Comment

The purposes of this study were to define and analyze the BIP within the framework of Thibaut and Kelley's theory of interaction outcomes, to assess the effects of attitude similarity and environmental familiarity on bystander intervention, and to offer implications for future research in this area. Its success in achieving these goals should be evaluated.

First, Thibaut and Kelley's theory adequately incorporates conflicting previous research in the area of bystander intervention. Individual hypotheses formulated to account for bystander inaction all fall within the framework of the present theory. Diffusion of responsibility becomes a case for relationship evaluation ( $CL_{alt}$ ). Greater intervention among friends was due to a reduction in costs through elimination of fear of embarrassment. Ambiguity became less a matter of the social situation or the emergency stimulus, as it was a means of increasing or decreasing the salience of rewards for intervention. The effect of experienced outcomes caused by differential geographic location could be overcome by salient outcomes of the helping relationship. And, demographic characteristics of the participants affected helping behavior by either increasing or decreasing rewards and costs through the various exogenous and endogenous determinants of interaction outcomes. Thibaut and Kelley's theory is surely not the only one which can account for such behaviors. Equity theory (Walster and Piliavin, 1972) which is concerned with an individual's attempt to maximize interaction outcomes (where

outcomes equals rewards minus costs) can also be applied to the present research. However, the purpose of choosing one theory over another was more to eliminate some of the confusion generated by conflicting interpretations rather than to claim dominion over the area. Surely the present theory has a wider latitude than many of the past theories applied to this area (social responsibility, reciprocity, and interdependence theory). If a new theory can accomplish more than the theory currently chosen, so much the better.

The second purpose of this study was to assess the affects of attitude similarity between victim and bystander and environmental familiarity on bystander intervention. This goal was not fully realized. It was observed that increased attitude similarity did, indeed, facilitate intervention, especially for the single bystander. However, the effect of multiple bystanders in many respects overshadowed these results. It was the hope of this experimenter that increased attitude similarity would increase helping regardless of how many bystanders there were present. This, unfortunately, was not the case. If the results of this study are valid, it would appear that greater intervention among multiple bystanders would best be achieved when either all bystanders are dissimilar from one another (Smith *et al.*, 1972), or when they are all very similar and act as a single entity (Latané and Darley, 1968).

The results of the environmental familiarity manipulation were very disheartening. The original manipulation was unsuccessful in instilling differential familiarity perceptions between groups.

Even when empirical divisions were employed, differences were so slight that no effect was observed. Were it not for other research in this area (Granet, 1970), one would be forced to draw the conclusion that environmental familiarity does not affect bystander intervention. However, as stated previously, this author believes that it was the experimental manipulation rather than the experimental variables which was at fault. The results of this and previous research both in the laboratory and in the field, stress the need for additional naturalistic research. Underlying factors which cause a subject to respond in a particular way in the laboratory (Orne, 1962) are non-existent outside of it. The effect of attitude similarity has been assessed under real-life conditions (Festinger, Schachter, and Back, 1950) but not in the area of bystander intervention. The work of Granet (1970) attests to the fact that environmental familiarity is a contributing factor in natural help-giving situations. More research is warranted in both of these areas in an environment and with a population that has meaning for all Kitty Genoveses. Perhaps, in time, like the Good Samaritan in the following parable, all people will help all people:

A certain man...fell among thieves...which...wounded him...leaving him half dead...there came down a certain priest...when he saw him, he passed by the other side. And likewise a Levite...passed by on the other side. But a certain Samaritan...came where he was: and when he saw him, he had compassion on him, and when to him... and set him on his own beast, and brought him to an inn, and took care of him. And on the morrow when he departed, he took out two pence, and game them to the host, and said unto him, Take care of him: and whatsoever thou spendest more...I will repay thee. (Luke.10:30-35)

## **APPENDICES**

**APPENDIX A**  
**PERSONALITY QUESTIONNAIRE**

## JUDGMENTS ABOUT YOURSELF AND YOUR LIFE

In this questionnaire, we have listed a number of statements about yourself and how you get along in your life. We would like you to show your agreement or disagreement with each statement. If you strongly agree with a statement, you can show this by circling STRONGLY AGREE. When you strongly disagree with a statement, you can show this by circling STRONGLY DISAGREE. If you feel somewhere in between, circle one of the answers in between. They are AGREE, NEITHER AGREE NOR DISAGREE, and DISAGREE.

Each question should be answered by itself. Don't worry about how you have marked other questions. Your answers will be kept confidential and will be used only for research purposes.

Remember, there are no right or wrong answers. Just circle the answers which show how strongly YOU agree or disagree with each of the statements about yourself and your life. Again, you can circle any one of the five answers that appear after the questions.

INSTRUCTIONS

Please answer the following questions as accurately as possible:

1. Sex: M \_\_\_\_\_ F \_\_\_\_\_

2. Age: \_\_\_\_\_

3. Religious Preference:

6. Mother's Educational Background

- A. Protestant
- B. Catholic
- C. Jewish
- D. Other
- E. None

- A. Some high school
- B. High School Diploma
- C. Some college
- D. College Diploma
- E. Graduate degree

4. Family Income

7. Size of Home Town

- A. Under \$5,000
- B. \$5,000-\$7,000
- C. \$7,000-\$10,000
- D. \$10,000-\$15,000
- E. Over \$15,000

- A. Under 50,000 population
- B. 50,000-250,000 population
- C. 250,000-500,000 population
- D. 500,000-1,000,000 population
- E. Over 1,000,000 population

5. Father's Educational Background: 8. Location of Home Town:

- A. Some high school
- B. High School Diploma
- C. Some college
- D. College Diploma
- E. Graduate degree

- A. North
- B. Northeast
- C. Southeast
- D. Central
- E. Midwest/West

9. Father's Occupation: \_\_\_\_\_

10. Mother's Occupation: \_\_\_\_\_

11. Number of: A. Brothers \_\_\_\_\_  
B. Sisters \_\_\_\_\_

12. Your College Major (or Probable Major): \_\_\_\_\_

-2-

1. My abilities and my willingness to work determine how far I go on the job. (Circle One)

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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2. How much I am respected really depends on me. (Circle One)

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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3. Generally when I say that the cards were stacked against me, it's just an excuse for the fact that I didn't really work for the things I wanted. (Circle One)

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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4. Who I make friends with depends on me, not who my parents were or where I was born. (Circle One)

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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5. Getting what I want out of life depends upon working to get it. (Circle One)

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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6. I like my friends to confide in me and to tell me their troubles.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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7. I feel like telling other people off when I disagree with them.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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8. I feel like getting revenge when someone has insulted me.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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9. I like to help other people who are less fortunate than I am.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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-3-

10. I am a very sociable person who gets along easily with nearly everyone.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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11. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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12. I like to criticize people who are in a position of authority.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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13. Anyone who completely trusts anyone else is asking for trouble.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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14. I prefer to do things alone, rather than with my friends.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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15. I like to do things with my friends rather than by myself.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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16. Before voting I thoroughly investigate the qualifications of all the candidates.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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17. On occasion I have had doubts about my ability to succeed in life.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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18. I sometimes feel resentful when I don't get my way.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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-4-

19. If I could get into a movie without paying and be sure I was not seen, I would probably do it.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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20. On a few occasions, I have given up doing something because I thought too little of my ability.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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21. There have been times when I felt like rebelling against people in authority even though I knew they were right.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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22. There have been occasions when I took advantage of someone.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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23. I'm always willing to admit it when I make a mistake.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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24. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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25. I sometimes try to get even, rather than forgive and forget.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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26. When I don't know something, I don't at all mind admitting it.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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27. At times I have really insisted on having things my own way.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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28. There have been occasions when I felt like smashing things.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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29. I never resent being asked to return a favor.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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30. I have never been irked when people expressed ideas very different from my own.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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31. There have been times when I was quite jealous of the good fortune of others.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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32. I have almost never felt the urge to tell someone off.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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33. I have never felt that I was punished without cause.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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34. I sometimes think when people have a misfortune they only got what they deserved.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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35. I have never deliberately said something that hurt someone's feelings.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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36. I think it is right that the colored race should occupy a somewhat lower position socially than the white race.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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37. The Negro and the white man are inherently equal.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>AGREE</u>		<u>DISAGREE</u>

38. Negroes sometimes imagine they have been discriminated against on the basis of color even when they have been treated quite fairly.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>AGREE</u>		<u>DISAGREE</u>

39. I probably would feel somewhat self-conscious dancing with a Negro in a public place.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>AGREE</u>		<u>DISAGREE</u>

40. Some Negroes are so touchy about getting their rights that it is difficult to get along with them.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>AGREE</u>		<u>DISAGREE</u>

1. I never hesitate to go out of my way to help someone in trouble.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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2. It is sometimes hard for me to go on with my work if I am not encouraged.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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3. I have never intensely disliked anyone.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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4. I am always careful about my manner of dress.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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5. My table manners at home are as good as when I eat out in a restaurant.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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6. I like to gossip at times.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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7. No matter who I'm talking to, I'm always a good listener.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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8. I can remember "playing sick" to get something.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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9. I always try to practice what I preach.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>NEITHER AGREE NOR DISAGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
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-8-

10. I am always courteous, even to people who are disagreeable.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>          </u>	<u>          </u>	<u>DISAGREE</u>

11. I would never think of letting someone else be punished for my wrongdoings.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>          </u>	<u>          </u>	<u>DISAGREE</u>

12. I am sometimes irritated by people who ask favors of me.

<u>STRONGLY</u>	<u>NEITHER AGREE</u>	<u>STRONGLY</u>
<u>AGREE</u>	<u>NOR DISAGREE</u>	<u>DISAGREE</u>
<u>          </u>	<u>          </u>	<u>DISAGREE</u>

**APPENDIX B**

**SEMANTIC DIFFERENTIAL QUESTIONNAIRE  
HIGH FAMILIARITY SUBJECTS ONLY**

SEMANTIC DIFFERENTIAL QUESTIONNAIRE  
HIGH FAMILIARITY SUBJECTS ONLY

When you fill out this form, please tell us what you feel. On the following page you will find a different word representing something and you are to judge that thing on the set of scales under the word. You should rate the thing on each of these scales in order.

Here is how you use these scales:

If you feel that the word at the top of the page is very close to one end of the scale, you should place your check mark as follows:

fair X : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfair

or

fair \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : X unfair

If you feel that the word is quite close to one or the other end of the scale (not not extremely) you should place your check mark as follows:

strong \_\_\_\_\_ : X : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ weak

or

strong \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : X : \_\_\_\_\_ weak

If the word seems only slightly close to one side as opposed to the other side, then you should check as follows:

active \_\_\_\_\_ : \_\_\_\_\_ : X : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ passive

or

active \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : X : \_\_\_\_\_ : \_\_\_\_\_ passive

The direction toward which you check, of course, depends upon which of the two ends of the scale seem most like the thing you're judging.

IMPORTANT: (1) Place your check marks in the middle of spaces.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : X : \_\_\_\_\_ This      Not This

(2) Be sure you check every scale for every word.

(3) Never put more than one check mark on a single scale.

## THIS ROOM

like \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dislike  
interesting \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ boring  
familiar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfamiliar  
together \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ separate  
similar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dissimilar  
meaningful \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ meaningless  
old \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ new  
pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unpleasant  
near \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ far  
stable \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ changeable  
good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad  
alike \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ different  
usual \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unusual  
nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful  
positive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ negative

**APPENDIX C**  
**VISUAL PERCEPTION QUESTIONNAIRE**

VISUAL PERCEPTION QUESTIONNAIRE

Please answer the following questions as accurately as possible.

1. Have you ever been fitted for glasses? If so,  
(a) when did you first begin to wear corrective lenses?  
(b) was the correction for myopia, far-sightedness, astigmatism,  
or other? (Explain)  
(c) when do you wear your glasses? (i.e., reading, watching TV, etc.)
2. Do any other members of your immediate family wear glasses? If so,  
whom and for what reason (see question 1(a)).
3. Give the date of your last eye examination.
4. Do you wear sunglasses? If so, are they prescription?
5. Have you ever sustained any injury to your eyes in an accident or  
such? If so, when?
6. Have you ever undergone any surgery to correct any such injury or birth  
defects of the eye (i.e., cross-eyes)? If so, give dates and explain.
7. Do you have any allergies which cause irritation to your eyes?  
If so, explain the allergy and subsequent eye reaction.

8. Have you ever participated in a visual perception experiment before? If so, explain when and what type of experiment it was.
  
9. Do you have a current driver's license? If so, at what age did you receive it?
  
10. Approximately how many hours a week do you drive?
  
11. Do you find it more difficult to judge distances in the evening when it is dark or during daylight hours? Explain.
  
12. Are you right-hand or left-hand dominant?
  
13. Do you see better with your right eye or your left eye?
  
14. Have you ever been tested for color blindness and with what result?
  
  
15. To the best of your knowledge, have any members of your family ever suffered from color blindness? If so, who were they and what has been done, if anything, to correct this difficulty.

Are you married, engaged, dating steadily or unattached? (Circle one)

Does your spouse (fiance, boyfriend, etc.) wear corrective lenses and if so, for what reasons?

Experiment Number: \_\_\_\_\_

Experimenter: Dr. L. Severy

Name: \_\_\_\_\_

Sex: \_\_\_\_\_ Age: \_\_\_\_\_

VISUAL PERCEPTION

1.	26.	51.	76.
2.	27.	52.	77.
3.	28.	53.	78.
4.	29.	54.	79.
5.	30.	55.	80.
6.	31.	56.	81.
7.	32.	57.	82.
8.	33.	58.	83.
9.	34.	59.	84.
10.	35.	60.	85.
11.	36.	61.	86.
12.	37.	62.	87.
13.	38.	63.	88.
14.	39.	64.	89.
15.	40.	65.	90.
16.	41.	66.	91.
17.	42.	67.	92.
18.	43.	68.	93.
19.	44.	69.	94.
20.	45.	70.	95.
21.	46.	71.	96.
22.	47.	72.	97.
23.	48.	73.	98.
24.	49.	74.	99.
25.	50.	75.	100.

**APPENDIX D**  
**POST-EXPERIMENTAL QUESTIONNAIRE**

## POST-EXPERIMENTAL QUESTIONNAIRE

### INSTRUCTIONS

Now that we have terminated the experiment, we would like you to give us some information designed to guide our analysis of the results.

#### Page I:

When you fill out this form, please tell us what you feel. On each page you will find a different word (representing someone or something) and you are to judge that person (or thing) on the set of scales under the word. You should rate the person (thing) on each of these scales in order.

Here is how you use these scales:

If you feel that the word at the top of the page is very close to one end of the scale, you should place your check mark as follows:

fair  : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfair

or

fair \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ :  unfair

If you feel that the word is quite close to one or the other end of the scale (but not extremely), you should place your check mark as follows:

strong \_\_\_\_\_ :  : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : weak

or

strong \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ :  : weak

If the word seems only slightly close to one side as opposed to the other side, then you should check as follows:

active \_\_\_\_\_ : \_\_\_\_\_ :  : \_\_\_\_\_ : \_\_\_\_\_ : passive

or

active \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ :  : \_\_\_\_\_ : passive

The direction toward which you check, of course, depends upon which of the two ends of the scale seem most like the thing you're judging.

IMPORTANT: (1) Place your check marks in the middle of spaces.

	This	Not This
_____	: _____	: _____
_____	: _____	: _____

(2) Be sure you check every scale for every word.

(3) Never put more than one check mark on a single scale.

Sometimes you may feel as though you've had the same item before on the questionnaire. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked earlier items.

Work at a fairly high speed through this questionnaire. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless, because we want your true feelings.

## EQUIPMENT ROOM (NEXT DOOR)

usual \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unusual

like \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dislike

interesting \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ boring

positive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ negative

similar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dissimilar

near \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ far

pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unpleasant

stable \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ changeable

alike \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ different

familiar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfamiliar

nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful

meaningful \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ meaningless

together \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ separate

good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad

old \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ new

## THIS ROOM

like \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dislike  
interesting \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ boring  
familiar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfamiliar  
together \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ separate  
similar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dissimilar  
meaningful \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ meaningless  
old \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ new  
pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unpleasant  
near \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ far  
stable \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ changeable  
good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad  
alike \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ different  
usual \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unusual  
nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful  
positive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ negative

## EQUIPMENT ROOM

usual \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unusual

like \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dislike

interesting \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ boring

positive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ negative

similar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dissimilar

near \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ far

pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unpleasant

stable \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ changeable

alike \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ different

familiar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfamiliar

nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful

meaningful \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ meaningless

together \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ separate

good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad

old \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ new

## EXPERIMENTER (ELLEN WEISS)

meaningful \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ meaningless

positive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ negative

pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unpleasant

stable \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ changeable

similar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dissimilar

like \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dislike

familiar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfamiliar

old \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ new

together \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ separate

alike \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ different

usual \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unusual

good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad

near \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ far

nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful

interesting \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ boring

## EXPERIMENT

pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unpleasant

together \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ separate

near \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ far

positive \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ negative

nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful

meaningful \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ meaningless

stable \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ changeable

usual \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unusual

familiar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ unfamiliar

old \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ new

like \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dislike

good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad

similar \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ dissimilar

interesting \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ boring

alike \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ different

Part II:

The following are a series of questions about how you perceived the experiment. Please be honest in your answers. If you need more room use the back of this paper.

1. Describe what you think happened next door after the Perception Experiment began?
2. Some people perceive that there was an emergency that called for assistance. What were your personal feelings about what happened as you remember them? As you feel now?
3. Are you satisfied with the way you handled yourself during the "emergency"? Why?

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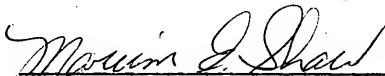
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#### BIOGRAPHICAL SKETCH

Ellen Weiss Williams was born April 18, 1949 in New York City. In June of 1966, she was graduated from William Howard Taft High School in the Bronx. In June, 1970 she received the degree of Bachelor of Arts with a major in Psychology from Herbert H. Lehman College, a division of the City University of New York. In the fall of 1970 she enrolled in the Graduate School of the University of Florida. From then until the present time she has pursued her work in Psychology obtaining the degree of Master of Arts in March, 1972 and Doctor of Philosophy in December, 1973.

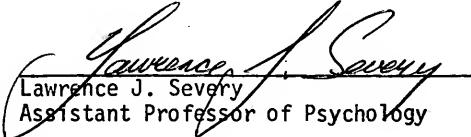
Ellen Weiss Williams is married to Mr. Randall C. Williams, a mechanical engineer from Lafayette, Indiana.

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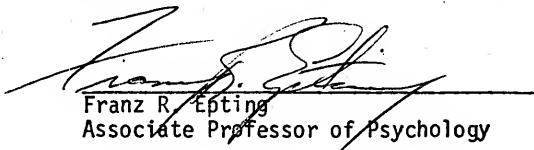
Marvin E. Shaw  
Professor of Psychology

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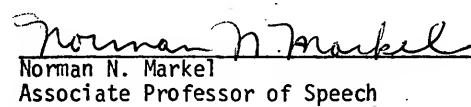
Lawrence J. Severy  
Assistant Professor of Psychology

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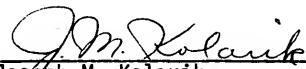
Franz R. Epting  
Associate Professor of Psychology

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Norman N. Markel  
Associate Professor of Speech

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Joseph M. Kolarik  
Associate Professor of Clinical  
Psychology

This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1973

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Dean, Graduate School